

**STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION**

In the matter of:

Implementation of Restructuring)	
Legislation (Chapter 854, Statutes)	Docket No.
of 1996, AB 1890): Renewables)	96-REN-1890
)	

**First Floor Hearing Room A
California Energy Commission
1516 9th Street
Sacramento, California**

Thursday, January 16, 1997

10:10 A.M.

REPORTED BY:

A. FLYNN

COMMISSIONERS PRESENT

MICHAL C. MOORE, Presiding Member

JANANNE SHARPLESS

STAFF PRESENT
(Alphabetically Listed)

Manuel Alvarez, Advisor

Jonathan Blees

Cheri Davis

Marwan Masri

Rosella Shapiro, Advisor

Tim Tutt

ALSO PRESENT
(Alphabetically Listed)

Ric E. Abel, Prudential Capital Group

Donald W. Aitken, Union of Concerned Scientists

Christo Artusio, Environmental Defense fund

Vincent D. Bartolomucci, San Diego Gas & Electric

Jim Birk, Electric Power Research Institute

Traci Bone, Davis Wright Tremaine LLP

R.T. “Hap” Boyd, Zond Corporation

Barry Butler, Science Applications International Corporation

Bill Carlson, Wheelabrator Environmental Systems, Inc.

ALSO PRESENT
Continued

Joseph Caves, Joseph Caves and Associates

Ken Delfino, Department of Forestry and Fire Protection

Lawrence A. Drake, CIGNA Investment Management

Evan W. R. Edgar, California Refuse Removal Council

Bob Ellery, Sierra Pacific Industries

Rich Ferguson, Sierra Club

John Grattan, rep. Blue Lake Power

Brent M. Haddad, Energy and Resources Consultant

George Hay, CAGT LLC

Herbert C. Healy, ONSI Corporation

Thomas C. Hinrichs, Geothermal Energy Association

Alan Jacobson, TSS Consultants, Inc.

Robert L. Judd, California Biomass Energy Alliance

Bill Julian

Steven Kelly, Independent Energy Producers Association

David Konwinski, Energy 2000, Inc.

George Larson, USA Waste Services

Charles Lombard, Waste Energy Integrated Systems

Jody London, Working Assets Green Power

Tandy McMannes, KJC Consulting Company

Eric L. Miller, Foresight Energy

Peter M. Miller, Natural Resources Defense Council

ALSO PRESENT
Continued

Gregory P. Morris, Future Resources Associates, Inc.

Michael J. Murray, Pacific Enterprises Company

Bob Musica, Boeing North American

Les Nelson, California Solar Energy Industries Assoc.

Eric R. Newman, Kahl Pownall Advocates

Donald Osborn, SMUD

John Palmer, County of Sacramento, Dept. of General Services

Nancy Rader, American Wind Energy Association

Wayne Rafflesberger, Attorney at Law

Thomas D. Randolph, Dept. of Forestry and Fire Protection

Henry Razouk, City of San Diego, Metropolitan Wastewater Dept.

W. Phillip Reese, Colmac Energy, Inc.

M. Donald Reighley, Placer County Water Agency

R.D. (Dale) Rogers, Rockwell International Corporation

Kerry Sachs, Puroast Coffee

John C. Schaefer, Consultant

Milton Schultz, Burney Forest Products

Roy Sharp, Livestock Systems Management

Paula C. Soos, Ogden Projects, Inc.

Richard V. Sowter, BP Solar Inc.

Barbara Peppard Sutak, Pacific Gas and Electric Company

Kathy Trelevan, Pacific Gas and Electric Company

ALSO PRESENT
Continued

Robin J. Walther, Southern California Edison

Robert B. Weisenmiller, MRW & Associates

Jonathan Weisgall, Geothermal Energy Association

Howard J. Wenger, Pacific Energy Group

Douglas F. Westerkamp, GE Aircraft Engines

Kevin M. Williams, Stanislaus Co.
Dept of Environmental Resources

Eric Wills, Daggett Leasing Corporation

Ken Wiseman, Consumers Utility Brokerage, Inc.

Ryan H. Wiser, Lawrence Berkeley National Laboratory

C. E. Woods, Calpine

Mark Yance, National Renewable Energy Laboratory

Ramin Yazdani, County of Yolo, Dept. of Public Works

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PROCEEDINGS

PRESIDING COMMISSIONER MOORE: It is January 16th. I'm Michal Moore; I'm the Presiding Member of the Renewables Allocation Committee.

I'm joined by my colleague Jan Sharpless; and our staff members, Manual Alvarez who is not on the dais at this moment; and Rosella Shapiro; and Jonathan Blees, our lawyer.

And we are here as you all well know, but for the record, I'll make it clear that we're discussing the staff draft and staff proposal, first cut, if you will, of a proposed allocation and certification system for the renewables report that we'll submit to the Legislature pursuant to AB 1890.

I have a couple of housekeeping items. The first is that our staff member Madeline, who is, I believe, out in the front -- I'm sorry. She is in the front, very front. And Madeline is responsible for taking in documents for the docket. So if things need to be filed, would you please do so via her good offices.

Marwan Masri, our staff representative who has been heading up the project, is here. He will be addressing us in a couple moments about the draft.

And Susan Gefter is somewhere in the front, our Public Advisor, and she's responsible for the blue cards that we are going to ask you to fill out so that I'll know how to keep time here and keep everyone on time.

And speaking of time, I'm going to ask you to hold your remarks to five minutes. If you go past five minutes, at the ten minute mark, the grace point, I won't summarily cut you off, but I will as diplomatically as possible remind you that we're going to shut the microphones off if you go any farther. I'm going to ask you to adhere to that because we have so many people who want to address us.

And I'm going to assume that you'll be able to, at this point in time given the information flow that we've had, summarize your remarks because you will, no doubt, have already submitted written comments to the docket for our perusal at a later time.

And I will also note that some individuals have asked that they be

included in the morning session because they have other time commitments, planes to catch. To the best of my ability I will accommodate everyone who has told me that they have time constraint. We will do the best can to get you out on time.

I'm roughly grouping people into similar categories. Of course some of the remarks that people have told me they want to make don't fit very neatly into any of those categories. I apologize if it feels like you're getting a little out of turn. But again, we'll be trying to group people in a similar category.

When you have more than one topic that you want to address, I won't be calling on you a second time. You're going to have to get those remarks out in the one appearance before the Committee. The report is as a whole, so I won't ask or expect you to compartmentalize your remarks by categories within the report. So if you asked us to speak on more than one topic, I'll ask you to address us and expect that you will hit all the topics during your time in front of us.

With that, let me just offer a couple of openings remarks. I want to express my gratitude and satisfaction with the amount of participation that we've had. Everyone from the staff to the concerned stakeholders has given greatly of their own time and interest and energy. We appreciated that very much and know it has not been an easy task to undertake. But it seems to me that we are coherently reaching a conclusion that I believe we'll be able to forward on to the Legislature with a minimum of controversy.

And of course, that's our objective, is to maximize the gains and minimize the controversy for any one agent, recognizing that there will be people who feel disenfranchised at the end of this wholly or partially. That's unfortunate, but that's the real world. And everyone of us knew that when we walked into this set of hearings. We are doing the best to cleave the baby, as it were, and still remain with viable living parts.

We are painfully aware that it would be wise to have more money, if the Legislature in their wisdom had done that. We can't increase that pot and neither can you at this point. So we're working with a fixed sum of money.

I believe that the staff report fairly outlines, although not always in the amount of detail that we expected, but we'll make up for that in the next round.

The rules and philosophy that we had iterated at the beginnings of these hearings, I think that they have been scrupulously careful to try and treat everyone fairly, to not discriminate. And I believe that even-handed approach is going to be appreciated at the Legislature, and certainly appreciated by the Commissioners who have to deal with this. So I'm very proud of them and look forward to the conclusion of this with their help.

And with that, I'm going to ask Jan if she has any openings comments.

COMMISSIONER SHARPLESS: No, actually. I'm very sensitive to the number of people and the amount of time we have, so I'm not going to take my five minutes.

But I would just add one second to Michal's, and that is that we recognize there are a number of places in the report where staff asks for comment where there are still areas where details are being flushed out. And to the extent that parties here have seen those, I, for one, am very interested in what reactions we can get from the stakeholders.

PRESIDING COMMISSIONER MOORE: Thank you very much.

With that, again, I'm going to start generally with industry representatives and I will ask Mr. Hinrichs and his group to come forward.

MR. MASRI: Excuse me, Mr. Commissioner.

PRESIDING COMMISSIONER MOORE: Oh, I'm sorry. I've already stepped off the platform. Excuse me.

Let me back up, correct myself, and suggest that I indicated to Marwan that I would ask him for a summary. And so with that, call time out, return to Marwan and ask him for a summary of the staff report.

MR. MASRI: Thank you.

PRESIDING COMMISSIONER MOORE: Marwan?

MR. MASRI: May I have the first slide? Okay. Next slide.

Good morning. I would like to again reiterate what Commissioner Moore said. Appreciated all the input that all the parties have given us. It made the very difficult job we have, which is trying to put a synthesis together, a little bit easier than what it is already.

I would like to also reiterate that this is a starting point, that we offer our best. In our best judgement, this is what balances the requirement of the Act, the availability of the money, the needs of the industry, and public policy objectives. We had to juggle all these objectives and come up with something that at least satisfies practically all of those.

AB 1890 in our review has certain policy goals that the money is supposed to be utilized to achieve:

The first one is to maintain the benefits and diversity of the renewables industry in a competitive electricity market.

Second is to encourage the development of new and emerging renewable technologies that show reasonable potential to become cost-competitive. Of course that is related to the first objective that in the long run really what we have to have is a self-sustaining industry that is able to compete in the open market.

And critical to that is the fourth goal, which is development of a self-sustaining, customer-driven renewable market in California. As a prominent economist, Alfred Marshall once said: You need both blades of the scissor to cut a paper. That is both the supply and demand side are really important to achieving the goals of a developing market.

And lastly, maximize the effectiveness of AB 1890 renewable funds. It's limited funds, and how can we get the most out of it in maximizing the long run production of renewables via development of a viable industry.

Next slide, please.

Now in developing our proposal we have attempted to satisfy those policy goals by the following actions:

We wanted to provide assistance to the renewable industry that exists today, utilizing in a very broad sense the triage principle that really requires quite a bit of information to implement exactly. And at the same time, keeping in mind that the need that the industry expressed to us and the available amount of money that's allocated by the bill.

Second, our proposal aims at encouraging the development of renewables marketing infrastructure by doing three things: One, providing

financial incentives for the customer-driven market; second, allocating funds for a customer information campaign and market research; and third, by encouraging reduction in the barriers for renewable projects to compete in the direct access market. And by that we mean, for example, the standard offer contracts prohibit or are a hindrance to many of these projects in their attempt to enter the competitive market, except for some of them that have easy termination clauses and so on.

Second, we wanted to employ -- we achieve those goals by employing simple, flexible and low-overhead distribution mechanisms. These are the mechanisms that we'd rely on to move the money from certain accounts to projects at some point.

Next slide, please.

This is just a general overview of the relative shares of renewable generation, non-utility renewable generation in California for the 1994 data. There's a similar pie chart appears in the staff report. It's based on capacities, so we thought energy is also a more relevant way to represent this.

As you can see, geothermal is by far the largest energy producer, followed by biomass closely behind, wind is third, and hydro and solar each account for about three percent -- small hydro, that is.

Okay, the next slide is our proposed allocation of the AB 1890 funds. Now the bill contains certain restrictions and constraints on how these funds are to be allocated. For example, at least 40 percent of the funds are to go to existing renewable projects.

And what you see on the top there, the first four boxes, are basically broad categories of allocation that we think the bill requires that we do. So existing renewables in our allocation received 40 percent of the funds, which is the minimum requirement in the bill.

The next two boxes are new and emerging; they receive 43 percent. In the bill, they are to receive at least 40 percent combined.

And our third category, which the bill refers to as the mechanisms that we recommend is to allow customers to receive a rebate directly from the fund. And we used -- we fulfilled our objective or requirement by developing a customer

category that has two accounts in it. Each of these categories are served, by the way, by one or more accounts.

As you can see here, this money sums up to \$540 million. I'd like to add to what Commissioner Moore said, that in addition to the amount and the fact that we have a limited amount of funds, we had more claims for it than existed. So in other words, what the industry asked for exceed 100 percent or the amount of money that's allocated by the bill. So clearly, some adjustment had to be made here.

Now I'd like to say here before we move on that the only category that has technology-specific allocation is the existing category. All our categories are basically open to competition. This is a -- the technology allocation in the existing category is basically a response to the bill's requirement or a statement that a diverse renewable energy industry exist in the state and also maintaining the benefits of existing generation.

The rest is open to competition because the bill also addresses market-based mechanisms to the extent possible within the constraints imposed by the bill. We wanted to base our allocation on market mechanisms.

Next one, please.

Now each of those categories, as I mentioned, is served by one or more accounts. The existing technology category account, proposed distribution account, would basically distribute the money on a per kilowatt hour production incentive. And the amount that incentive would vary would be determined quarterly. And again, it will vary because if you take the amount of money allocated into existing, divide it by generation, the amount of generation would vary. Maybe even the funding in one period, because some projects may shut down other new projects pass the SO4 cliff would come in and become eligible so the amount will vary. And this is really difficult to predict how much it is going to be.

However, we suggest that a cap be imposed on the amount of payment per kilowatt hour. And the details of that is now a report.

We also are considering tying the payment to short run avoided costs. And that the payment from the fund then would float between a target price for a given technology and the difference between that and short run avoided costs, again

with a cap of one to one-and-a-half cents per kilowatt hour.

The new technology we distinguished between two new categories. New repower, which is really designed to respond to what the wind industry presented to us that most of their new investment would be in repowering. And we also proposed that this be accomplished through a production incentive in a per kilowatt hour basis that's basically identical mechanically to the existing technology account.

New construction, this is new other than repower, would receive assistance in the form of financing, either loan guarantees, interest rate buydowns. And we would fund those projects, we propose, through a competition through an application process that would have these projects compete for the available funds.

Continuing on distribution mechanisms on the next slide. We are already there.

The emerging technology account, because the emerging technology category is very hydrogenous. The number of technologies that may be eligible there, as well as projects within each technology. We propose projects specific assistance in the form of we would have annual solicitations for projects to apply for the funds. And the type of assistance, it would be flexible as described in our report.

And we are proposing that no one technology get more than 60 percent of the available funds. Again, this is -- the amount would be determined on balancing the needs of a technology as well as the available amount of money. And maybe, you know, far below this, depending on the technology and the need and the available money. But it should not exceed 60 percent.

The last account that we have set up is to pass money to consumers, the consumer rebate account. And that one, again, would vary depending on the number of customers that are there in the market. That would be capped at one-and-a-half cents per kilowatt hour, and it would be --. One way to distributed this money would be to provide lump sum payments to certified providers to offer rebates to customers. And we were limited to small business and residential customer classes.

Okay, next slide please.

Our proposed certification process for the “go first” provision of AB 1890 funding, renewable resource suppliers and providers would self-certify with the CEC or another appropriate entity.

Additional eligibility requirement determines which suppliers and providers receive AB 1890 funds. And that’s again laid out in our report.

We would envision quarterly reporting by certified suppliers and providers that would provide the basis for the payments that would be made from these accounts. And we think periodic monitoring and verification, combined with penalties for false certification, would be necessary to minimize abuses.

And finally, we have other issues that the bill asked this report to address. And these are microcogen, cogen fueled by environmental pollution and fuel cell.

Basically the bill asked the Commission or this report to consider whether there’s a need for mechanisms to ensure that microcogen and cogen fueled by environmental pollution, whether they need mechanisms to ensure that they be competitive in the open market. And also whether fuel cells qualify as fuel switching for the purposes of CTC exemption.

And our recommendations are that microcogen less than one megawatt be exempted from a CTC. We would make that recommendation as mechanisms to make them competitive.

As well as cogen fueled by volatile organic compounds or VOC, also less than one megawatt would be exempt from the CTC or would make a recommendation that be exempted.

For facilities bearing VOC that are larger than one megawatt, we would recommend that they be examined on a case-by-case basis. We are not ruling them out, at the same time we’re not giving them blanket exemption because the size may be too large and loopholes may exist in that category.

We recommend that fuel cells qualify as fuel switching and therefore be exempt from the CTC per AB 1890 exemptions.

And finally, fuel cells that use non-fossil fuels would qualify as renewable.

And that concludes my summary.

PRESIDING COMMISSIONER MOORE: Thank you, Marwan.

With that, I'm going to open the hearing and I'm going to step back from what I started to do before, because I did indicated I would take those people who had a time conflict.

So let me go to John Grattan who indicated he needed to be on a plane. We'll entertain your testimony.

MR. GRATTAN: That's greatly appreciated. I represent the Blue Lake Ultra Power III, 11-megawatt power plant. And in doing so in this room surrounded by representatives of thousands of megawatts or power, I feel akin to the **Sciberene Eagle** [phonetic] and the czar of Russia. You all know the czar.

Sciberene is a little town in the southwest part of Ireland. It's been poor forever and the **Sciberene Eagle** for many years was the newspaper, the weekly newspaper of that area. And back in the early part of the 19th century the czar of Russia, I think one of the Alexanders, was on the move in the Balkans or in the Black Sea somewhere, and the **Sciberene Eagle**, circulation 432 remarked in an editorial, "The **Sciberene Eagle** has it's eye on the Czar of Russia."

Well, the Blue Lake Biomass, all 11 megawatts of us, have our eye on the California Energy Commission. And you know something? You've done pretty well in the staff report.

Our issue was certification. We were looking for a simple process. We were looking not to overlay a bunch of perhaps irrelevant and unnecessary considerations. And that's exactly what the staff report recommends.

And again, I salute the staff and I think we're on the right track and I will remind you that Ultra Power III Blue Lake has a petition in for certification. Go for it. Let my people go. We're looking to enter the market.

The other issue that I want to address is the issue of the \$81 million the staff has recommended be set aside for customer rebates. And we look at this as a good deal for those of us who would like to enter the open market.

I do take issue with one artificial constraint in the distribution of this customer rebate. And that is that the staff has recommended that it not be allowed

for transactions involving large businesses, however that's defined.

We think this is a very artificial distinction, and we think that to the extent that renewables are going to be able to enter the open market, it's going to be because of the place they play in the local economy which is often a rural economy.

And we'd be looking, and most would be looking to sell to our neighbors. And if our neighbor happens to be a large business, why should that business and why should that corporate energy manager be penalized for doing -- or be denied a benefit, I guess is a better way of putting -- for recognizing it's part, meaning the biomass energy's part and the large businesses' part in the local economy.

And we urge that you don't overlay unnecessary, perhaps ideological conditions on the customer rebate.

One further point with the customer rebate is we'd like to see the Commission retain some flexibility with regard to both the term and the amount of that customer rebate. The term and amount of that customer rebate may well make the difference in completing a direct sales contract. And that may be just the value added that will make a contract attractive. And we urge that the Commission give itself some flexibility and not set a hard and fast cap to a particular customer rebate.

And with that I'd like to thank the Commission, I'd like to thank the staff. This has been a very open process and I appreciate -- Blue Lake appreciates the opportunity to be heard.

Questions?

PRESIDING COMMISSIONER MOORE: Thank you, Mr. Grattan. We appreciated very much your petition on certification. Obviously, technically couldn't be taken up by us until some action is forthcoming by the Legislature. We're not in the position to do anything except recommend the certification process today.

MR. GRATTAN: If you'll read our initial certification that at least believe that the authority is here with the Commission to do that. It requires no expenditure. The definitions are clear.

PRESIDING COMMISSIONER MOORE: I understand, and I believe

Commissioner Sharpless also understands your point. We're not on the page yet though. We haven't come to the point where we're confident that we have the authority.

MR. GRATTAN: If there's anything that we can do to help you along -

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[Laughter]

MR. GRATTAN: If there is any signal that we could get the Legislature to send you, we would be pleased to do that.

PRESIDING COMMISSIONER MOORE: Thank you very much.

MR. GRATTAN: Thank you.

PRESIDING COMMISSIONER MOORE: All right. Within the renewables industry group, I'm going to ask Steve Kelly to come up.

MR. KELLY: Thank you, Commissioners. I'm Steven Kelly with the Independent Energy Producers Association.

Being that I'm not from Sciberene, I kind of feel myself as representing London, though it's good that Sciberene is here.

We do have a couple comments. Early on in this process IEP had proposed some principles that we thought would be very effective in guiding this process, not only through your process but into the Legislature to make sure that we were able to implement a program by 01/01/98.

To remind you, those were the consistency with the intent of AB 1890. So in light of those principles, I'd like to make a few comments.

I have a couple -- two general comments.

First, in regards to the staff proposal, the approach which implies that there will be \$540 million of renewable funding through this transition period is probably overly optimistic. I suggest that if we really use the number 465 million, which is the assured number that's available for renewables, the difference is not -- it's certainly not in our control of whether we can get there.

I think once you make that change you will find that in some of the categories the number becomes quite modest even under the staff's proposal. And it may not be of too much benefit in that case.

Secondly, I'd like to mention briefly about the staff's triage approach which creates an interesting catch-22 from our perspective. Under this approach if QFs run, they don't need any funding; and if they don't run, they don't need any funding.

The natural tendency then is: Where does the funding go? And I think you see -- by an entity as far as I'm concerned.

And that leads me to a conclusion that I don't believe that's the intent of AB 1890. The Legislature clearly indicated its support, and all the parties involved in the negotiations for AB 1890, including the utilities and customer groups, agreed to provide, to support the operation of basically two resource categories. One, the existing; and secondly, new and emerging.

And I note in the staff's proposal there's a tendency to create three, which is existing, new and emerging. I think that is not consistent with the language in AB 1890.

In terms of the inconsistency with the intent of AB 1890, it leads me to one foremost concern. And that is basically the 20 percent allocation for emerging technologies. AB 1890, as you know, is the outcome of extensive discussions, negotiations, between a wide range of interested parties. And it was a process that was very much open to all parties interested. Indeed it took the entire month of August to conclude.

The renewable component to the bill was a compromise by these parties in many ways, and reflects the negotiations to that process. Certainly IEP did not support the bill with the expectation that 20 percent of the funding for renewables would go to parties not even participating in that process. And it's quite clear from my role in that process that the emerging technologies were not there.

We have agreed that a certain percentage ought to be allocated to emerging, but I don't believe the allocation that staff is proposing is consistent with the parties that negotiated AB 1890.

Frankly, the concept of emerging technologies was added very late in the process, and it was added to not preclude emerging from being able to access the funds in the new category. But it certainly was not the intent to create a separate

category by itself.

Staff's proposal, particularly regarding the 20 percent allocation to emerging, I believe represents its own preferences based on its own interests in fostering those technologies and is not fostering the intent of the parties that negotiated AB 1890.

They argued -- staff proposal argues that the effectiveness of the state renewable program should be measured by the accomplishment of three broad policy objectives including encouraging the advancement of new and emerging technologies that, quote, "show reasonable potential to become cost effective."

In fact, AB 1890 which addresses this issue stated that the test for those technologies were ones that showed significant commercial potential, as opposed to a reasonable opportunity to become cost effective.

I think there is a big difference there. And I've certainly come to the conclusion over the last couple months listening on the proceedings here about the cost effectiveness of many of the emerging technologies, I've come to the conclusion that many of them are not near significant commercial potential.

My understanding of -- and I'll take PV as an example because they had the broadest representation in this process and the most open in terms of the cost. My understanding of the PV industry, the status of that industry today is that they basically need 18 cents a kilowatt hour. They expect to get five out of this process and 13 cents on the net metering approach. And that makes them whole. And under that approach, they have a 22-year payback period.

As we look forward down the road, the 13 cent per kilowatt hour net metering benefit is not going to be 13 cents, it's going to be eight or nine, probably, because costs are going to go down. So when I do a quick calculation of the math in my head, I believe that the payback period for those technologies exceed 22 years, probably near 30 years, and will probably exceed the lifetime of the roof in which they are supposed to be placed.

Now if that is going to be significant commercial potential, I don't know. I have some big concerns about that. I think it is still more representative of an RD&D technology than an emerging technology. At least it's contemplated in

AB 1890.

The solution? I for one believe that the industry coalition that proposed allocating eight percent for emerging technologies was more than generous. A more appropriate level, based on IEP's participation in AB 1890 would have been four percent. So that's a level that we think is the most appropriate level for emerging technologies given the intent of AB 1890.

My second primary concern with the staff proposal is that I believe it fails to foster market and business relationships which will be critical to the transition for the renewable industry into a competitive market.

It appears that the staff's proposal in the triage approach which it lays out would needlessly perpetuate the old type of regulatory structure which is inappropriate for the new world. The staff proposal would have all the decisionmaking regarding allocation and distribution methodologies made by it. And it would sustain these by what I expect will be very lengthy and time consuming proceedings to get it right. And then there will be additional proceedings to fix the fact that we didn't get it right the first time.

We've been there and I think we've done that. And that was one of the reasons why that we have engaged in the Legislature to develop a bill that will get us to a market-based approach. A centralized bureaucratic decisionmaking approach is --

My solution for this is I suggest where particularly the industries that are looking for new and emerging allocations go to a bank, perhaps the infrastructure bank with a business plan. And rather than go here, they would go there with a business plan. The bank will use engineering consultants, just like you would for proformas on a bond issuance, to verify and test the feasibility of the project. And based on those criteria, it would allocate monies.

We certainly can set some guidelines for that. The Legislature will certainly be interested in guidelines and standards that that bank might use. But it seems to me that that will transition our industry into engaging in a bank-like relationship in the market, rather than have to come to a regulatory forum to access

the allocation of monies.

COMMISSIONER SHARPLESS: On your banking concept, is that for all categories?

MR. KELLY: Particularly applies to new and emerging. For existing, I'm not sure that it works there. I'll have to think that through a little bit more. We have -- there's a different problem perhaps with emerging -- or excuse me, existing, than the new and emerging in terms of being able to take a plan to them, as: This is what I want to do with it. This is where I want to get my money.

COMMISSIONER SHARPLESS: It seems to me like existing would be the best place. You know there's a history. Emerging, the banks are going to be in there trying to figure out technology -- banks are risk averse, I think.

MR. KELLY: Well, but the bank --

COMMISSIONER SHARPLESS: And emerging seems to be a little risky. And how you join a risk averse and a risky situation together without adding some significant cost to the money, I meant --

MR. KELLY: Well, I --

COMMISSIONER SHARPLESS: That may be in your written comments and it will all become clear.

MR. KELLY: The banks are particularly risk averse when they're dealing with their own money, but in this case they're dealing with public money.

COMMISSIONER SHARPLESS: Public funds, yes. Gift of public funds.

MR. KELLY: We recognize that. But we can set guidelines for the allocation.

COMMISSIONER SHARPLESS: Who's "we"?

MR. KELLY: The Energy --

COMMISSIONER SHARPLESS: The industry?

MR. KELLY: -- Commission and the Legislature. I mean I look at this process as a mechanism to develop.

COMMISSIONER SHARPLESS: I thought you didn't want the Energy Commission to set the rules because we're too bureaucratic.

MR. KELLY: That's true. I don't want the Energy Commission to be

implementing the rules in the second, third, forth, and fifth years of this. I would rather we set the rules now, have entities with a clear understanding of what their going to engage in, go to an entity with a business plan and let that entity evaluate that plan on a business perspective.

COMMISSIONER SHARPLESS: I don't want to take any more time.

PRESIDING COMMISSIONER MOORE: No, that's fine.

MR. KELLY: I have one last comment.

The staff proposal I think also -- and this is probably more a function of time, fails to address the institutional requirements that we believe are necessary to sustain a viable renewable energy market.

As you know, AB 1890 called out the report to address concepts like a clearing house and a marketing agent. And we would like -- we will work with the staff on developing those. We are working aggressively on that now. Hope to have presentations to you soon to help kick start that discussion.

But in light of that, there's one aspect of the staff proposal which is an assumption that I think that is probably unwarranted at this point in time. It's the issue regarding contract restructuring. I think it would be a mistake to assume contract restructuring as the basis for going forward and developing our proposals.

As you know, contract restructuring is going to require not only capital to accomplish that, but also a great number of parties, QFs, utilities, the banks, the PUC and so forth, to get that structure in place. And at this point in time it's not clear whether a successful mechanism is going to be developed or not. And given the timeframe that you're dealing with, I would recommend not assuming contract restructuring as creating the vehicle for freeing-up renewable electrons into a market.

And as I indicated, we're happy to work with you all on the concepts of the marketing needs in the clearing house. We think those are, particularly the clearing house which has the potential for providing a place for buyers and sellers to go to sell what I consider to be the residual kilowatts from bilateral contracts. For example, if you have a ten-megawatt unit, you've got an eight-megawatt bilateral deal, what do you do with two megawatts?

It will not be a solution that works if they have to go to the power exchange. What we need is a mechanism and a place where consumers can go and sellers can go to trade.

So with that I --

PRESIDING COMMISSIONER MOORE: If you have language on that clearing house idea, we'd appreciate it if you'd submit it to staff as rapidly as possible. As you know, we're closing in on our own time deadlines.

MR. KELLY: I understand that. We will have materials for a presentation very soon and develop some language for you.

PRESIDING COMMISSIONER MOORE: Thanks. We'll look forward to seeing it.

Bill Carlson.

MR. CARLSON: Thank you, Commissioners. I'm Bill Carlson with Wheelabrator Technologies, a biomass producer, but speaking today on behalf of the entire renewable industry coalition.

First, like to follow-up with Steve with applauding the staff on trying to make a reasonable allocation of funds when there aren't enough funds. And that is basically the proposal I'd like to make today is how to balance these competing interests when there isn't enough money to go around.

If I could for a second characterize what I see as being involved in this process for some time now the positions of the competing interests. On the one hand, you have the emerging developers, you have many of the environmental community. You have the green marketing people who come before you. You have, in fact, many of the staff who would if there were no constraints in AB 1890 give as much of the money as they could to new and emerging categories and very little of the money to the existing producers.

And the reasons that they would cite for that, and I've heard these reasons in the Committee meetings, are that there's a fear of windfall profits for the existing producers if too much money goes to that category; not wanting to support a dinosaur is another reason that is given often; that we've already gotten all that we needed out of the standard offer contracts and shouldn't expect to get any more;

and fourthly, it's simply time to move on, move on to something new.

On the other hand you have the existing renewables industry and their bankers, who I'm sure you'll hear from later today, who if left to their own devices and with no constraints in AB 1890, would do exactly the opposite with funds. They would give a substantial fraction of the funds to the existing industry.

And the reasons they would cite for doing that are that the transition period is likely to be the lowest period we ever see for SRAC because of all the -- if there are must run provisions under CTC collection divisions, that will force down the SRAC payments during this transition period.

If the existing industry goes away, no one will finance a new industry anyway because if they've been burned once they're not likely to be burned again.

We all have plans to get to market at the end of the transition period, and we need this money in order to make those plans come about.

And fourthly, we've already invested seven or eight billion dollars early on in developing the renewable industry in California and we deserve to have that investment protected.

Now try as we might in a series of meetings, we have not been able to close all of that gap away, nor could the staff, in reading carefully their proposal. They have basically come up with a "share the pain" proposal that gives something to all of these competing industry interests, but not necessarily all that any of the interests need.

Consequently, I would like to put forward a compromise proposal this morning that seeks to place the available funds at the point of greatest need while protecting against any potential for excessive profits from the public funding that we're talking about here. This compromise proposal, which I'll call the "production incentive rollover proposal," is actually described in concept on page 21 of the staff report, although they do not flush out a lot of the details.

The production rollover proposal works as follows: The target funding for the existing renewables industry would be at levels spelled out in the renewable industry coalition proposal that was presented to you a few weeks ago, with an addition of three percent for another category into which landfill gas and hydro,

which were not included in the original proposal, would be put.

Target SRACs would be established for each technology. And we would suggest those would be set at three-and-a-half cents per kilowatt hour for wind, geothermal, and for the combination of landfill gas and hydro. And at five cents for biomass and potentially for silver, even though they'll give you a little more detail on a proposal that they have later.

The maximum production incentive caps would be established for those technologies as well, and those caps would be set at one cent per kilowatt hour for wind, geothermal, and the landfill gas and hydro category; and one-and-a-half cents per kilowatt hour for biomass and solar.

On either a monthly or quarterly basis, a cents-per-kilowatt-hour production incentive would be paid to existing renewable producers based on the difference between the actual average SRAC for the period and the target SRAC. The funds paid would be further limited by the production incentive cap, the amount allocated to that technology and the rate of collection of the funds under AB 1890.

For example, the average quarterly SRAC was 3.8 cents per kilowatt hour. A biomass plant would receive a production incentive of 1.2 cents, the difference between 5 and 3.8, if funds were available. If more funds were requested than were available, the production incentive would be dropped to match the available funds.

Now if SRACs were high in a particular year or kilowatt hour production low for whatever reason, any unused funds would rollover for use in the following year to further fund the emerging and the customer incentive categories which were the ones that potentially were reduced in order to make room for the proposal that we're talking about, along the line of Steve Kelly.

So the staff funding levels in those categories will be dropped initially with the funds shifted to the existing category with the potential for those funds to come back if they are not needed by the existing industry.

To further fund customer incentive funds, we would recommend that they also be the recipient of customer check-off monies that are described in AB 1890

and the municipal funding that is yet to be decided.

The funds would thus go then to the area of greatest need. If SRACs are low, the existing industry is preserved, and there is likely little demand for new renewables anyway if they are chronically low. If SRACs are high, the existing industry gets little and the bulk of the money goes to emerging and customer incentives.

For example, at a four cent per kilowatt hour SRAC, over 40 percent would go to these two categories. In no instance is anyone unduly enriched by renewable industry funds.

We urge you to look closely at such a rollover mechanism as it appears to effectively deal with satisfying the competing interests in an era of too little overall funding. The production incentive mechanism will be maximized -- excuse me, will ensure that the renewable generation will be maximized during the transition period clearly one of the goal spelled out in AB 1890 while giving existing producers only what funds they need to transition the market by 2002.

Thank you.

PRESIDING COMMISSIONER MOORE: Thank you, Mr. Carlson.

COMMISSIONER SHARPLESS: May I ask one question?

I'm not clear as to how we meet the obligation in the Legislature to assure that 40 percent minimum goes to existing and 40 percent minimum goes to new and emerging.

MR. CARLSON: The proposal that I made essentially gives 60 percent of the funding initially to existing, while preserving the 40 percent for new and emerging. The customer incentive monies in that case be counted as part of the new with the potential that it will roll back -- a lot of the money will roll back the other direction.

Basically the uphill side starts with the 60 percent to the existing industry and it rolls back if not needed.

PRESIDING COMMISSIONER MOORE: To the extent they don't take advantage of it, it rolls over into the new and emerging consumer-funded side.

MR. CARLSON: Right.

COMMISSIONER SHARPLESS: And so in your proposal there is no customer?

MR. CARLSON: Well, you could still --

COMMISSIONER SHARPLESS: Customer consumption category.

MR. CARLSON: Yeah. The case that I'm talking about you would have allocated 60 percent to existing to begin with.

Consequently, if they needed all of that 60 percent they would not have access to the customer incentive funding. But if it rolled back, then they would be able to participate.

COMMISSIONER SHARPLESS: And what happens to those facilities that are still on SO4 contracts?

MR. CARLSON: This proposal would not give them any funding during the fixed price period of their SO4 contracts.

COMMISSIONER SHARPLESS: What about those on SO2?

MR. CARLSON: We have not distinguished in this between those and SO4. SO2 never had a fixed price period.

PRESIDING COMMISSIONER MOORE: So under this they get money after they fall off the cliff, the ten year period?

MR. CARLSON: Yes. Exactly.

PRESIDING COMMISSIONER MOORE: Right.

COMMISSIONER SHARPLESS: So tell me again. What happens to the consumer market part of the program?

MR. CARLSON: Consumer market, we would suggest that you would allocate between the emerging funds and the consumer incentive funds to find the amount of money needed to transfer it at the beginning to create a 60 percent fund for existing. Then I would say that the money that should roll back on a prorata basis, depending on the contribution that they made initially to the existing fund.

COMMISSIONER SHARPLESS: So you're going to merge new emerging and consumer all together and have them share a 40-percent pot in the beginning?

And then depending on how SRAC goes, these categories either get --

well, you never get more than 60 percent of the money.

MR. CARLSON: Right.

COMMISSIONER SHARPLESS: And they might get more than 40 percent of the money if SRAC is high enough and the need for the existing category is lower.

MR. CARLSON: Right.

COMMISSIONER SHARPLESS: Is that how it works?

MR. CARLSON: It would --

COMMISSIONER SHARPLESS: On a what kind of basis? A quarterly basis? A yearly basis?

MR. CARLSON: Well, the production incentives would be paid either monthly or quarterly, but at the end of the year you would determine how much was unused and it would immediately roll then to the other category. It would not be a need necessarily to merge those other categories. That would be up to the Commission, obviously.

COMMISSIONER SHARPLESS: Is there more detail in your written comments?

MR. CARLSON: There will be, yes.

COMMISSIONER SHARPLESS: There will be, but there isn't currently that I have in hand.

MR. CARLSON: Well, by the 22nd. We will have it by the 22nd.

COMMISSIONER SHARPLESS: Okay. Thank you.

MR. CARLSON: Thank you.

PRESIDING COMMISSIONER MOORE: Nancy Rader.

MS. RADER: Thank you. My name is Nancy Rader with the American Wind Energy Association.

I just wanted to add one point to what Bill said in response to your question about whether 40 percent would be guaranteed to both existing and new, and I think we envision giving up some of the 40 to existing if that's the way market prices turn out. But if we're not looking to collect that 40 percent if market prices make it unnecessary, although that would conflict with the current strengths of the

law.

There is a lot that AWEA can support in the staff draft, and perhaps most importantly the staff to a large extent recognize the importance of allocating funds to each technology in the form of incentives paid directly to suppliers.

Second, the report rejects wholesale reliance on indirect and risky allocation approaches as some parties have advocated.

And third, the report raises some new interesting ideas for flexibility, for adding flexibility into the allocations which Bill has just described how that can potentially be the key to resolving the differences between many of the parties.

I just want to highlight what is contained in my written comments, the areas where we believe the staff draft could be improved to maximize the production of wind energy, both during the transition period and afterward.

First, as Steven Kelly said, the emerging category is afforded a disproportionate share of the funds.

Second, though we are pleased that staff doesn't make customer rebates a centerpiece of its proposal, it is our strong believe that a customer rebate program focused on small consumers has little chance of success. And this is because there is unlikely to be a sufficient supply of renewables available to the direct access market during the transition period. Transactions costs are likely to be very high, and the bulk of the funds are like to go to green power marketers rather than to the production of renewable kilowatt hours, among other reasons.

Third, staff go beyond the task given to the Commission when it advocates encouraging existing renewables to compete in the direct access market and encouraging contract buyouts. These things really have no basis in AB 1890.

The chief purpose of AB 1890 renewables funding is to maximize the generation of renewable power and to foster the development of customer-driven markets. It would be contrary to this purpose to attempt to develop customer markets at the expense of renewables generation as would occur with a small customer rebate program, we believe.

And I think it's important to realize that encouraging contract buyouts could dramatically reduce the generation of renewable power in this state. And

that's because if all sunk costs are paid, project owners have no reason to continue operating if they can't meet their operating expenses with the pool price.

If contract buyouts were to occur on a mass scale, even greater emphasis would have to be placed on production incentives for existing facilities to maintain current levels of generation.

Fourth, categories that are intended for particular renewable resources, such as the repower category which is intended for wind, we believe should be expressly limited to those resources to reduce the uncertainty in the intended effect of AB 1890 funds.

Fifth, inadequate attention appears to have been paid to the renewables industry proposal for certification of marketing programs. The renewables industries made a detailed proposal for these programs which we believe would be far simpler and more effective than the proposal outlined in the staff draft.

I would like to encourage the Committee to seriously examine the merits of the industry proposal and to make certification and marketing the focus of a workshop in the next couple of weeks because I think we've paid too little attention to those issues, and they really require some focus.

Now I have just a few comments related to the specifics of the allocation approaches for wind energy and the actual allocations.

The allocation to existing wind projects should be restored to AWEA's original request of 14 percent of total funds in order to provide an average production incentive of .6 cents per kilowatt hour. This incentive, as Bill Carlson suggested, could be made flexible as a way of balancing the needs of existing projects in the event that a full price is low, and encouraging more repowers and new projects to the pool price is sufficient to maintain the existing projects.

If the pool price is sufficient, excess or spillover funds from the existing account could be reallocated to the repower new wind account. And depending on how far the emerging and customer rebate categories are reduced, some funds could be reallocated to those accounts.

Raising the incentive to existing projects is necessary if these funds are to have an appreciable effect on the maintenance of projects. And adder of .3 cents,

which is what the staff proposal amounts to assuming \$465 million which is all we can assume, will not sufficiently influence decisions about whether to make investments in repairing turbines or cannibalizing those turbines for parts.

Lenders first need to see healthy companies before they will lend funds for repower. It is important to first maintain industry and project health, and then to reallocate funds to the repower new category if the pool price proves to be sufficient.

Secondly, half of the additional six percent required to restore the funding to the existing wind category from 8 to 14 percent should be drawn from the repower category and half drawn from the emerging or customer rebate categories.

Third, as I mentioned earlier, the repower category should be limited to wind technology and open to competition from new wind projects. There is no reason why if a new wind facility is cheaper than a repower it shouldn't be able to compete against a repower.

Fourthly, funds for both repowered and new projects should be allocated through the bidding process previously proposed in detail by AWEA. Competition would determine the incentive payment. And again, this proposal could be modified to incorporate the flexible production incentive approach described by Bill Carlson. And this could be accomplished by having bidders bid a total target price, and the incentive would be based on the difference between the target price and the pool price.

Finally, all wind incentives should be paid on a monthly, not a quarterly basis, if possible, because expenses are incurred on a monthly basis and payments should be consistent with realities of conducting a business.

We would also encourage that the wind funds be divided according to historical production levels of wind, because if you don't do that you can result in some higher payments in certain months and biases to certain projects and resources areas.

I have several other comments on more specific issues, but I'll defer to my written comments on those.

PRESIDING COMMISSIONER MOORE: Thank you, Ms. Rader.

Jan?

COMMISSIONER SHARPLESS: Yes. I'm sorry, we haven't had an opportunity to review all of your written comments since we just received them today. And I'm trying very diligently to try to follow what you're saying.

You like the idea of earmarked funds in the existing for each technology. In the new category you would combine the new and emerging together as has been suggested by others?

MS. RADER: It kind of depends on how the overall puzzle is put together. We would like to see existing wind funds spilled over into the repower, wind, repower and new category to some extent.

COMMISSIONER SHARPLESS: "Spilling over," in other words flexibility from what? Quarter to quarter or year to year?

MS. RADER: Year to year.

COMMISSIONER SHARPLESS: Year to year. And under the new, you would have it also earmarked?

MS. RADER: Mm.

COMMISSIONER SHARPLESS: Not competitive as is currently in the staff proposal?

MS. RADER: Yeah. We would prefer that at least some amount of funds be set aside for wind repowers and new wind so that we make sure that some of those funds go to the wind industry. And I think some of the other industries feel the same way that so some degree we'd like some certainty, especially if our repower -- especially if we're not going to get what we asked for, which was 14 percent for existing and nine percent for new. We would like the existing funds to spill over to the new repower wind category in order to do the repowers we'd like to do.

COMMISSIONER SHARPLESS: At least in the new you wouldn't expect or you would be requesting some earmarked repowering for wind.

MS. RADER: We would prefer that.

COMMISSIONER SHARPLESS: Do you have any comment on the definition of "repowering" that was in the staff's proposal?

MS. RADER: I think we're comfortable --

COMMISSIONER SHARPLESS: Is that in your written comments?

MS. RADER: Actually, well, I mostly commented on things where we had problems. I didn't specifically say that was okay, but it is. We are comfortable with that. It fits with the eligibility for the federal production tax credit.

COMMISSIONER SHARPLESS: Okay. And there is an issue of taxes, and I don't know that we've resolved to anybody's satisfaction. I think you know we have a letter going to the IRS asking a series of questions.

Do you believe that your proposal protects your industry in terms of the type of money that you were getting, production incentives, that you would not be ineligible for the federal tax?

MS. RADER: Well, we won't know until we get a response from the IRS, but we do think that we have a good chance that production incentives will not be included in the -- what counts against the federal production tax credits.

I think other things like the financing and investment incentive or grant, those things would be much more problematic. But we're hopeful that this survives. If it doesn't, we have to kind of go back to square one and I'm not sure what a state can do in terms of encouraging renewables if a production incentive is off limits.

COMMISSIONER SHARPLESS: Okay. Thank you.

PRESIDING COMMISSIONER MOORE: Thank you, Ms. Rader.

MS. RADER: Thank you.

PRESIDING COMMISSIONER MOORE: Tandy McMannes.

MR. MCMANNES: I represent the solar thermal electric alliance.

We understand that the staff report is a starting point for receiving public comments, but however, we have some concerns with the report that I'd like to address. And specifically, it's on pages 16 and 17 of that report. The report says that the SEGS units historically have produced approximately 600 gigawatt hours per year. We'd like to point out that on average we have produced 900 gigawatt hours. If you do the math, at 354 megawatts at about a 30 percent capacity, that equals about 930.

All of our projects are qualified facilities, and they meet the definition of the CEC report for renewable technology. So if the difference between what we produce and what's in the report is that we're having only our solar recorded, we take exception with that because all of our output does qualify under our QF status.

We don't, however, think it's all about output, and we'd like just to address those concerns. We think it's also about diversity and reliability.

The California Legislature has expressed concern over diversity. The SEGS plants built in the '84 to '90 timeframe represent the only significant application of solar energy in California.

The Legislature has also expressed concern over the preservation and enhancement of system reliability. The SEGS projects are peaking facilities. They achieve 100-percent on-peak capacity and 80-percent summer mid-peak capacity. As a matter of fact, our plants at Kramer Junction during the ten years have never failed to achieve 100-percent on-peak capacity.

The report also says that "While these units are important as the main existing source of solar generated electricity, they represent only one of several solar technologies of the future."

Over the past 12 years or so we've all had the same rules to play by in the renewable industry. But yet solar, in the SEGS projects in particular, are the only successful large scale producers of solar power in California.

What we would suggest is that before the staff dismisses the SEGS projects as either being obsolete or not competitive, that we make sure that the alternatives work.

The report also says the staff considers solar thermal's request for ten percent of the total funds to be too high. Early on in the hearings and the workshops the Commission strongly urged us to participate in reaching a consensus. The group that we participated with represents 95 percent of the renewable generation in California.

While we feel that's appropriate to increase the amount that's in the report for the existing facility, we would hope that any reduction from that would be more on a proportionate basis as opposed to simply just cutting it and basing it

purely on output.

The report says the staff believes a new parabolic trough construction in the foreseeable future is unlikely. Referring to California development, that is probably a reasonable conclusion, given the uncertainty with deregulation and SRAC.

We would also say that we doubt any solar thermal could be built in the next several years given the conditions in California. However, we want to point out that referring to any new parabolic trough development that is not a reasonable conclusion. At the present time, there are development activities in many foreign countries, of which our group is a participant in some of those developments.

The report says that staff questions the benefit of continuing the support to the early SEGS units which have modified and improved, still represent only an older and less cost-effective technology. Our interpretation of the bill was that the monies were to be used to support the existing solar thermal technologies, and nowhere in there do we interpret that it would eliminate support for either the early ones or the later ones.

The early SEGS units, which are SEGS I and SEGS II, have been operating for 12 years. As a matter of fact, SEGS II has been operating for 12 years on a discounted standards offer 2 contract. So to suggest that somehow they're not, you know, viable and won't, you know, be able to continue into the -- after the transition period, we just don't believe is correct.

The report staff also says that they're concerned about the equity of providing funds to the newest SEGS units which were built with the variable and uncertain electric prices of the standard offer 2 contracts. It says that "These generators made business decisions based on low and uncertain gas prices, and these market conditions remain largely unchanged."

The investors of the SEGS II facilities, our response to that is that they made these financial commitments prior to the low gas prices. I worked for Luz at the time these investments were being made, and many of the gas projection prices that we use for financing these projects came from the CEC.

To suggest that SEGS X project fit that category would be correct. SEGS X was attempted to be financed at a time when natural gas prices were coming down. Luz was unable to finance SEGS X on the basis of declining natural gas prices. And unfortunately as a result, Luz went out of business.

One of the said purposes of AB 1890 is to maintain diversity, and we would think that in excluding either the earlier projects or the later projects would not support a diversity argument.

One final point I want to bring up is the staff report proposes that the SEGS receive production credits like all other technologies. It says that “in this manner, all incentives to existing plants would be based on actual generation of electricity.”

Our response to that is, and it was included in the report and I’d like to give one more -- the Commission to take one more consideration of our position. We believe the most efficient use of funds for our technology will be through capital improvements. Replacement of broken solar components; operations and maintenance cost reduction activities.

We see these activities as being long term infrastructure commitments that will make the facility more competitive today and in the future. We are requesting that the Commission review our proposal and consider our capital approach.

And one final point, we have eliminated the debt buydown provision from our proposal. There seemed to be some confusion by that, and maybe we didn’t think it out very clearly. And we do think the funds that are allocated to the SEGS in order to make us competitive now and in the future would be better spent on capital improvements.

Thank you.

PRESIDING COMMISSIONER MOORE: Thank you very much.

Bob Judd.

MR. JUDD: Thank you, Commissioners. I’m Bob Judd, representing the Biomass Energy Alliance, and with me is Phil Reese, also representing the Biomass Energy Alliance to make comment on an aspect of the proposal here.

I will try to skip through these notes and not reiterate what you have already heard.

In general comments in response to the staff draft, a lot of input, short period of time, good effort. It's tough dealing with too much with too little time.

We felt in the executive summary of your report, it starts out with effectiveness of state renewables program measured by the accomplishment of three broad policy objectives. And then you set up five objectives under that, that include assistance commensurate with needs, minimize assistance to industries likely to be competitive without additional funding assistance.

It's mentioned at the front end, but not followed up in the allocation. We'll comment on that further in our remarks.

We note also the absence of discussion of varying tax credits that might accrue to certain technologies and not to others.

Overall, we felt that your executive summary would benefit by including at the front end, rather than buried in the report, the purposes of the renewables fund itself as they are spelled out in Section 383(a). That's been delegated to the body of the report, and it's been supplanted by a policy interpretation at the staff level. And the two may not quite be the same. So I mention that.

Our intent as participants in the industry proposal was to maximize the generation of renewable resource electricity in the present and into the future, while driving across down to market levels during the transition period.

We believe that the industry proposal, modified perhaps in the way that Bill Carlson addressed with a rollover to protect against any sort of windfalls and to provide a level of funding as SRAC goes up for other purposes, actually meets that objective better than the staff proposal does if you measure it in terms of maximizing production of kilowatt hours from renewables. The industry proposal retains all of the assets of our renewable resource base, but provides support to that asset base only if support is needed.

To the question of voluntary contributions for electricity consumers and to the question of public purpose support from customer oriented utilities, it raises a question that we will address. We feel that unless dollars are allocated in a

market basket approach from the consumer incentives program and out of this category, there is an inherent bias against renewables that may be slightly higher cost than other renewables.

We feel that unless there is a market basket approach that ensures proportional somehow participation of all of the renewables in the funding, that the tendency will be to go toward least cost renewables at the expense of those that may be slightly more expensive yet offer higher benefits.

We re-state our support for the allocations set forth in the industry consensus proposal.

Ms. Sharpless, in response to your question about the tax question, we feel that that 80 percent figure that is in there is an IRS requirement that is useful for those who need that tax credit. It may not be appropriate for other technologies who would not get the tax credit. In the definition of new, for instance, 80 percent may be not quite right.

COMMISSIONER SHARPLESS: Do you have an alternative?

MR. JUDD: We'll try to give you one in our comments. We're consulting, at least on our side, with parties to our group now and trying to come up with something that makes sense. And then our written comments will try to address that.

Let me turn to the specifics of your proposal, briefly. We feel that the allocation for biomass in effect masks a much heavier hit on biomass than a number like 26 percent would represent by the inclusion of landfill gas. Under certain assumptions, the allocation to biomass, that is solid fuel biomass facilities, would drop much closer to 20 percent.

And if you follow Steven Kelly's logic that you ought to plan your allocation based on 465 million rather than 540 million, what you end up with for the biomass facilities is a per kilowatt hour production incentive that is likely to be well below a cent per kilowatt hour. It doesn't cover the gap that is anticipated under current conditions to keep the facilities in operation. In fact, it furthers the economic uncertainty in de-stabilized situation that the plants find themselves in now.

We would strongly recommend that the landfill gas category be given a separate category of its own. That it be removed from the biomass category. There is no rhyme or reason why landfill gas is included with biomass.

The landfill gas generators may well have a need for an allocation here, but it should probably go into either the other category and increase that by a couple of percentage points, or it should have its own separate category. And the funding for that should come out of the emerging category which we feel is overly ambitious under these circumstances.

Two quick notes that we will close with here. Customer rebates, as Steven Kelly pointed out, it might make sense to enlarge that for agricultural and industrial customers, rather than just small business and residential. We know in the valley here in California there may be opportunities for agricultural customers to provide fuel to air biomass plants and then purchase the electricity back out of that in somewhat of a closed loop system. We think the definition ought to be broadened to allow those kind of activities to occur.

We appreciate your raincheck proposal. We think that's a good idea in the proposal.

And with that, I'd like to turn it over briefly to Phil Reese just for a quick comment on one item I raised.

MR. REESE: Yes, this is Phil Reese from Colmac Energy speaking for the biomass alliance.

I'm going to speak very briefly to just questioning the inclusion of the landfill gas in the biomass category. I have to question it because other than showing up as included in the line item, there's not a single mention analysis or rationale for that inclusion.

I would point that in support of not including it, to the extent that a landfill gas generator is just a gas generator, it is a very different animal from a biomass plant. We handle thousands and thousands of tons of solid stuff. We push it around and we carry it and we chip it and we screen it and that sort of thing. Their fuel comes in in a pipe. Substantially different cost in the fuel handling.

Now there's been little information made available to us in terms of

demonstration of need by the landfill gas industry. It may be there. We haven't seen it, and it wasn't in the report. But there was an industry paper produced which has been provided to your staff, which on its face appears to justify the need for support.

I'd like to quote three very brief statements. It says what the landfill gas projects do. Quote, "In general, each of these landfill gas to energy projects has the potential to save local communities tens of thousands of dollars annually that they would otherwise have to pay." That is the waste generators.

Quote, "Saves municipalities the cost of installing their own gas collection systems." Gas collection systems are virtually always a requirement of the permit to build a landfill.

Thirdly, quote, "Provides funds to local municipalities in the form of royalty payments for landfill gas rights."

Now those three are a cost shifting from the waste generators to the electric ratepayers, which is exactly the opposite of the AB 1890 encouragement under the CAL EPA task to shift cost away from ratepayers on to the beneficiaries. Now this industry paper says that in order to provide those benefits they need the support.

Now Bob mentioned that inclusion of landfill gas is a big hit on the solid fuel biomass industry. As you probably know, the four-year transition period is the period when the majority of the solid fuel plants fall off the cliff. Those who have not fallen off the cliff under our proposal are in no way eligible for support.

When you add the landfill gas kilowatt hour generation to the biomass generation, in 1998 you add 50 percent kilowatt hours, which is a substantial hit when there is a fixed pot for solid fuel biomass. In 2001 it's about a 25 percent addition.

So when biomass alliance proposed its minimum support requirement, it was just that. What we needed to close the gap, as Bob mentioned. If you take a third of that away, it's not sufficient.

As Mr. Carlson suggested, perhaps a better place for landfill gas and hydro is in the other category as included in the industry proposal.

Thank you.

PRESIDING COMMISSIONER MOORE: Thank you very much.

Jan.

COMMISSIONER SHARPLESS: Quick question. I notice there was no mention so far by the biomass people concerning staff proposal that the revenue received from this fund be tied to progress toward meeting some revenue shift for fuel. Do you have any comment on that?

MR. JUDD: We will comment on that in our written comments. My general sense of it is this: We are actively engaged with CAL EPA in the Integrated Waste Management Board and a series of workshops we've submitted a number of recommendations there for cost shifting that are going through hearings and hearings. CAL EPA will come out with a report and we plan to take initial actions this year, legislatively, to initiate cost shifting on that.

Obviously when you're dealing with categories of forestry, agriculture, water and urban waste, it doesn't get all accomplished in a year. But we have a strategy to seek consensus on these shifts so that we get to the market price prior to the end of the transition period.

COMMISSIONER SHARPLESS: So the bottom line is that you will be making some comment about that in your written comments?

MR. JUDD: We will.

COMMISSIONER SHARPLESS: Okay. Thank you.

MR. JUDD: But I think the way it was stated in the staff report is a little awkward because it seemed to condition the allocation of funds to completion of the tasks that are necessary to ensure the cost shifting. And that realistically is not going to happen within this timeperiod. But we are committed to taking aggressive steps to begin the process which is going to take place over the transition period.

PRESIDING COMMISSIONER MOORE: Just for clarification, I don't think it claimed to do that. It did that. So if you want to address that in your written comments, I don't think there was any ambiguity there.

Thank you.

MR. JUDD: Thanks.

PRESIDING COMMISSIONER MOORE: Mr. Hinrichs.

MR. HINRICHS: I think Jonathan Weisgall is on your list too, and we'll come up together.

PRESIDING COMMISSIONER MOORE: He is.

MR. HINRICHS: I'm Tom Hinrichs, representing the Geothermal Energy Association. Mr. Weisgall is president of that association, and representing CalEnergy Company.

We in the geothermal industry are not pleased with the way that geothermal was handled in the staff report from the standpoint of earmarked funds primarily. Biomass and wind somewhat took a haircut in the amount of earmarked funds; solar thermal had a shave; and we got scalped.

To substantiate that, the biomass percentage is 84 percent of what the industry proposal was earmarked for that industry; wind, 87 percent; solar thermal, 40 percent; and geothermal only has two percent earmarked specifically for our industry, which represents seven percent of the amount that was in the proposal.

The way that those --

COMMISSIONER SHARPLESS: Excuse me.

MR. HINRICHS: Yes.

COMMISSIONER SHARPLESS: You're speaking specifically on the existing category?

MR. HINRICHS: No. I'm speaking of earmarked funds, what is happened --

COMMISSIONER SHARPLESS: Overall?

MR. HINRICHS: Overall. In the industry proposal there were 27 percent of the total money earmarked for geothermal. Now within the geothermal proposal we had utilization of that money both for new projects and existing projects. We had 22 percent of the money going to new and five percent to existing. The only thing that is earmarked in the staff proposal is two percent going to existing, and that has to be shared with the small hydro.

The thing that's occurred, of course, is we have our earmarked funds have been sacrificed to bring in some of the customer rebate and financing programs

for competition. And the staff indicates that they anticipate that the geothermal industry will have a significant portion of that going to them in the competitive environment. However, competition is not the same as earmarked funds.

The way I think to make this overall fair, looking at the haircuts that have been taken, is that of that money set aside for the competition, as indicated in the staff report, about 80 percent of that ought to be earmarked for geothermal competing amongst themselves within their own industry for new customer and financing programs.

One of the aspects that geothermal proposed was a revolving loan fund. We're not totally tied to that. There are certainly other mechanisms for financing that would be appropriate.

But one of the things that was indicated in the staff report that we object to is that money comes back in it would not necessarily continue to be provided for future geothermal programs, but to other programs. And we feel strongly that if that type of thing is done, it ought to stay within our industry.

There is some evidence in the report that geothermal is competitive. We just want to be assured that we are not competitive with the market. And during this transition period, that's why we're here seeking earmarked funds.

And I would also just indicated that we are very much in support of the comments of IEP, relative to the emerging technology obtaining too much of this at the 20 percent level. Even the compromise proposal that was put together by the environmental groups had them in it as much lower levels than than. And that in the customer rebate programs we also feel that large customers should not be excluded from that.

With that I'll turn the mic over to Mr. Weisgall.

COMMISSIONER SHARPLESS: Before you do, could I ask a question?

MR. HINRICHS: Certainly.

COMMISSIONER SHARPLESS: Following your lines of argument, you want it earmarked where?

MR. HINRICHS: Well --

COMMISSIONER SHARPLESS: Existing?

MR. HINRICHS: No. In the industry proposal where we had 27 percent of the funds earmarked for geothermal --

COMMISSIONER SHARPLESS: Right.

MR. HINRICHS: -- we had 22 percent of that for new financing programs and customer rebate programs toward new projects, and five percent for existing projects with an SRAC support.

COMMISSIONER SHARPLESS: So you would want then in the category of "new"?

MR. HINRICHS: The 22 percent would be in the category of new. And following up with Mr. --

COMMISSIONER SHARPLESS: If we were to combine the new and emerging --

MR. HINRICHS: Yes.

COMMISSIONER SHARPLESS: -- you would still want 22 percent in the new?

MR. HINRICHS: Yes.

COMMISSIONER SHARPLESS: Okay.

MR. WEISGALL: Jonathan Weisgall with CalEnergy.

I came across a quotation last night from Jonathan Swift which would probably the best way I could characterized my reaction to the allocation mechanism that's in the staff report. He said, "Blessed are those who expect nothing, for they shall not be disappointed." Enough said on the allocation method and Tom I think accurately represents the views of the industry.

I think the single biggest problem in the staff report is that it fails to show how new megawatts are going to come online. It is the focus of our company, so I apologize if I focus on this too much. But this we do feel is obviously a very fundamental part of AB 1890.

If you take these categories, new has the new construction, you've got the 59 million and the customer rebate at 81 million which assumes some contract restructuring. Maybe half of that would go to new. You're really realistically looking at about \$100 million going to new.

I'm excluding repower because repower is not bringing new megawatts online. It's replacing existing megawatts with repowered megawatts. There may be a little bit of new there, but it's essentially as it implies with repowering is simply replacing existing.

So you've got about 59 plus half of 81, call that 40 -- 99, you've got about \$100 million specifically earmarked for new development. Now that's what the percentage of the 540 or the 460, you're in a ballpark of under 20 percent of the dollars are being earmarked here for new.

And we think that this flaw has been created as others have said, by putting too much into emerging technologies. And we believe, as others have said and I don't want to take up anymore time on this, kind of over-reliance on the customer rebate mechanism especially for residential.

There's obviously a balance to be struck here. You don't want large industrial customers to walk off with the biggest chunk of this. You want to develop a green market. But this is still an untested mechanism. And it's important to remember that.

We think it is -- the rebate mechanism is an unproven technology.

The other points that I want to make are really two basic watch words here. One is "fairness"; one is "certainty." I think Tom Hinrichs has addressed the fairness aspect with the way the numbers work. Let me address the concept of certainty.

As we look at new development, any developer has to as you go into the loan market, as you look to lenders, those lenders have to see some certainty that the project is actually going to come to fruition and that the electrons are going to move.

What we have here is with a series of categories and with an annual bidding process, a lack of certainty in that market. I think it can be cured, but right now I don't think it's realistic to expect the way it works aside from the dollars which are quite low, that any major developer is really going to look to this fund for new development.

Now the report -- there's no mystery about new geothermal

development. There's no big matrix here. I think it's realistic and I don't purport to speak for the whole industry, but I think everyone agrees there really are three new development opportunities for this industry: Expansion in the Imperial Valley; Glass Mountain in Northern California, which is I believe the largest untapped geothermal reserve in the United States; and third, a way to enhance the geysers by running a waste border line from Santa Rosa to get more steam out of the geysers. These are the three projects.

All three companies or all the different companies who have interests in these different projects are anxious to pursue them, more than willing to bid against one another. But if this bidding has to occur on an annual basis, if there is limited funding, it's going to be very difficult to achieve that goal that we think is a good one, of encouraging new development through different financing techniques, and through financing techniques that will leverage those dollars.

We had a very good meeting with your staff this morning to move that process along. And we think that the mechanism, once the tax issues are resolved, is a very good one. But it needs more certainty; it needs more dollars; and it needs to get rid of an annual solicitation process.

In other words, that process would occur. In year one there should be a bidding process. Whoever wins or however it's allocated should then be set for the next four years of funding so a company knows what funds are available under AB 1890 that will be these public dollars or these publicly leveraged dollars that perhaps together with revenue bonds as well as traditional equity and debt financing will make this project a reality.

So in sum, I think the major changes that are needed are shifting money from emerging technology funding to new resource development; shifting money from customer rebate to new resource development; well, and third, committing the loan funds in a single solicitation in the first year of the transition period.

I think that, just very quickly, I think Steve Kelly got it right, you should not assume contract restructuring. I think that's a very tough assumption to make.

And what we're talking about here with the new dollars is a little bit about what Nancy Rader was talking about for wind. Earmark the repowering for wind, that's her basic message, so that wind knows that it's bidding against itself for these projects. Or if you have new money for wind, give that to wind.

We subscribe to that, and we would say the same message should apply for geothermal. Whatever those dollars are going to be, we do feel it is better to earmark it for the specific segment of the industry, wind, geothermal, whatever, so that at least we know what those dollars are and we know that we're going up, that CalEnergy and Calpine and Oxbow, Unical, the geothermal companies are bidding against one another, not bidding against wind projects. I think it will make it a much more successful program.

PRESIDING COMMISSIONER MOORE: Thank you very much, gentlemen. Appreciate your comments. You'll have written comments in to us as well?

MR. WEISGALL: We will submit written comments by the 22nd.

PRESIDING COMMISSIONER MOORE: Ken Wiseman.

MR. WISEMAN: Good morning. I'm Ken Wiseman with Consumers Utility Advisors in Bakersfield. As you may recall, our company operates in the San Joaquin Valley where we are seeking to reduce the particulate matter released during open field burning.

We have encouraged the Energy Commission to give priority to renewable projects which reduce air pollution in non-attainment air basins. We believe the Staff document could be a little more specific in regarding the supporting such public benefit, but, of course, we realize that they're also awaiting the CAL EPA Waste Board report.

The mechanisms for allocation and distribution proposed by Staff in the draft are, on the whole, both balanced and fair. These mechanisms offer unique incentive for farmers to turn their orchard and vineyard wood waste into cost effective electricity generation rather than into the particulate matter that comes from open field burning.

These staff mechanisms can be used to support our closed green loop

arrangement that incentivizes farmers to promote biomass to energy. With minimal adjustment and clarification, these mechanisms, we believe, can encourage farmers to form cooperative arrangements to process their biomass into renewable energy which can then be economically delivered back to the farmer as a direct access customer. We are not interested in doing this unless it is cost effective.

Now this will require that farmers be able to take advantage of distribution mechanism number five, the per kilowatt customer rebate for direct access consumers. We suggest that you make changes on page 25 to include farmers along with qualifying residential and small business consumers of electricity from renewable sources.

I know there's a lot of debate. There's small, large, good, bad. The reality of agriculture these days in two of the clients that I am working with would make a wonderful story as far as grandma and grandpa coming over from the old country and mom and dad still involved in the operation, and these two couples both farming; but the reality is that they are farming respectfully 6 and 10,000 acres apiece. That is not a small business. But it does generate a lot of biomass, and they are the ones, along with their bankers, who have to have the incentive to do this.

And we suggest that you add then to your language that farmers in non-attainment air basins who've contracted to process their orchard and vineyard wood waste in a biomassed energy facility. They can then, as a customer, purchase it direct access their proportionately generated share of electricity and qualify for the related consumption credit.

We would also need to be certain that such an arrangement does not get excluded under whatever final language is developed for captive fuel supplies as mentioned in page 12 of your draft.

Now making available to farmers both the customer rebate account and the various options on renewables accounts will offset the chilling effect of the competition transition charge.

The CTC discourages biomassed energy in favor of open field burning. And, again, we are not interested in getting into the biomass business unless this is a long-term viable project that will pass muster with our bankers. Effectively

compensating for the CTC now will ensure the cost effective and pollution reducing biomass program is in place, self-sustaining, customer driven and competitively generating electricity well beyond 2001.

Thank you.

PRESIDING COMMISSIONER MOORE: Thank you.

Les Nelson. And I believe Mr. Wenger is going to testify with you.

MR. NELSON: Good morning. Les Nelson with the California Solar Energy Industries Association.

I have some very short comments today, and it's designed to lead into a very short presentation from the three solar renewable technologies that we represent here today. Mr. Wenger will be the first one.

SEIA, CAL SEIA and SEIA, have been closely involved in the development process of the original proposal submitted in November and follow on comments, and we do commend staff for the obvious hard work that went into developing the draft report. We recognize these are difficult issues.

Nevertheless, CAL SEIA and SEIA would like to reiterate our strong feeling that the allocation we recommended in our original proposal 25 percent for emerging technologies is the most appropriate recommendation for funding tomorrow's technologies through this process. We believe that each of these technologies will be able to demonstrate real opportunities in the near term and be in a position as a result of the investment of these monies to compete with the market at or near the end of the period.

In specific, we believe in the emerging category where staff has made a recommendation that no more than 60 percent of the funding should go to any particular technology, that that particular cap would be counterproductive and would result actually in tying the hands of the CEC in determining what are appropriate allocations to various technologies. We think that they should be rather evaluated on their own merits and not be subject to what appears to be an arbitrary cap.

Regards to the issue of hybridizing, which is one that has come up repeatedly, CAL SEIA and SEIA strongly believe that the Commission does have the

opportunity, if not the final say, in recommending to the Legislature that the 25 percent cap for fossil fuels be eliminated. That number has basically just stuck around for a long time without having a strong basis in reason, and we believe that CEC taking a stand on the removing that, that particular restriction, would be the first step in successfully changing that number and removing it, hopefully.

One of the earlier commentators made some comments in regards to the amount of equity that the emerging category, category emerging technologies have had in this process, particularly in the formulation of AB 1890. And I guess I take some exception to that in that the emerging technologies are clearly spelled out in AB 1890. And I don't see anywhere where there are dates for where various things appeared in that bill.

The bill is the will of the Legislature. Emerging is clearly spelled out there. So I believe that any notion that more or less involvement leading to the inclusion of that really has no merit in these proceedings.

Finally I would like to reiterate our point that we've made in the past, and that is that SEIA and CAL SEIA strongly support the comments of the Solar Thermal Electric Alliance and their case for investment in those existing solar technologies and hope that you'll duly consider their request to revisit their allocation number.

Thank you.

PRESIDING COMMISSIONER MOORE: Mr. Wenger.

MR. WENGER: Thank you. My name is Howard Wenger. I'm representing the Photovoltaics Coalition representing the Photovoltaics for Utilities Corroborative, Solar Industries Association and the Sacramento Municipal Utility District.

Thank you for the opportunity to speak today. I'd like to restrict my comments to the emerging technology allocation category and specifically photovoltaics within that category.

I'd like to reiterate our support of SEIA's position that no less than 25 percent should be allocated for emerging technology. It's not a surprise to me today to hear from members of the smoky back room club their pot shots regarding

emerging technologies and the other category which is a consumer rebate category because they've co-opted the rest with their coalition.

They invited us to be members of the smoky back room club, but they didn't offer us a cigar so we left. But we appreciate their comments, and we appreciate their needs. We feel that allocating 75 percent of the AB 1890 funding to the well established industry is more than fair and reasonable.

There's basically three points I'd like to make specifically regarding photovoltaic allocation. Mr. Nelson mentioned one of them, and that had to do with the 60 percent funding cap within emerging technologies. We think that that's arbitrary. We don't see such a cap exercised in any of the other categories.

For example within the existing category 26 percent of the funds is allocated to biomass which represents some 65 percent of the existing funds. When you couple their ability to access the consumer rebate program, they're getting well in excess of 60 percent.

So we feel that that cap is arbitrary and should be removed. We think that every emerging technology should develop a commercialization plan and should be evaluated on the merits of that plan, and a specific allocation should be made.

Staff recognizes that, and we appreciate it. They said in their report that a specific allocation should be made for photovoltaics, but it just hasn't been made. We request that that allocation be made as soon as possible.

We feel that the full funding of \$96 million should be allocated to photovoltaics. And the reasons are that we feel that it's the best AB 1890 opportunity to create a new and sustainable industry.

The next point I'd like to make is more of a clarification with respect to financing. Staff recognizes that consumer financing is a crucial element for photovoltaics, and, however, I'd like to point to our comments to Staff to show that we have looked at two options for financing. Option one is an interest rate buy down program, and option two a revolving loan program. Both of these would require, at a minimum, \$24 million.

So we would just like to have Staff look at our comments and

recognize the importance of financing and the context of it.

The last comment I'd like to make has to do with annual project specific allocations that under the emerging category that Staff has proposed, this is not the right vehicle for photovoltaic commercialization. We're talking about many thousands of systems. We propose that approximately 20,000 systems will be installed as a result of this program.

And to try and make an annual project specific allocation for these types of systems is just not doable. It's more oriented towards a multi-megawatt proposal, which is a focal point of the Staff report.

Further we think that the allocation has to be firm and committed. The state has to say we are committed to funding \$96 million for photovoltaics up front. It's going to be done this way, here are the rules, this is how it will be implemented.

And if we don't do that, if the state doesn't step forward and do that, then the signal is not going to be sent to the industry. The investment and factor expansion, new factories and advertising and marketing, it just won't happen.

If it's done on an annual let's see what happens this year and then the next year, then the industry's just going to wait and see, and those investments aren't going to be done. That's how you do commercialization.

So a firm program has to be put in place. We agree with Staff that control mechanisms have to be put in place as well, and we agree with them that there needs to be safeguards. That if industry targets are not met in the plan, then the whole program needs to be shifted. And we would be more than happy to work with Staff in developing those safeguards and mechanisms.

In summary I'd just like to applaud Staff and the others that have helped Staff put together this report and the Commission. We feel that you've done a very good job. We, in the limited time, but we hope that our concerns are taken seriously, and we appreciate the time today.

Thank you.

PRESIDING COMMISSIONER MOORE: You had two other individuals who were going to speak with you?

MR. WENGER: Not -- okay, yes.

PRESIDING COMMISSIONER MOORE: I have two more people on my card here.

MR. WISEMAN: Right.

MR. BUTLER: I'm Barry Butler representing --

COMMISSIONER SHARPLESS: Excuse me, could I just ask are the details to which you speak going to be in your comments for the 22nd, or do I get an understanding that you intend to have further conversations with Staff on some of your ideas?

MR. WENGER: In terms of the ideas on the safeguards and mechanisms and so forth?

COMMISSIONER SHARPLESS: Yes, the administrative.

MR. WENGER: The administrative part of it. We hadn't planned on it, but we can. We would be very open to meeting with Staff in trying to put something together by the 22nd. We have submitted comments on the points I've made today before you but not on these administrative type details.

COMMISSIONER SHARPLESS: The concept of having this done by a bank, someone outside of government, do you have a response to that?

MR. WENGER: I think that for the photovoltaics program you'll have part of the program administered perhaps through banks, and that would be the financing element. The rebate element, I don't see why that couldn't be done through a government entity or an oversight board or a government industry partnership.

COMMISSIONER SHARPLESS: Okay, thank you very much.

MR. WENGER: Thank you.

PRESIDING COMMISSIONER MOORE: Mr. Butler.

MR. BUTLER: I'm Barry Butler with Science Applications International Corporation.

The dish sterling technology is our emphasis, but I wanted to make a comment to the Staff and the Commission that what the Staff report seems to have done is captured the spirit of the hearings. Its balance subsidy versus the existing,

for existing technologies versus investment and emerging, and regulated environment versus the market production incentives which will build us a private demand that will keep this industry viable once the AB 1890 funds are gone.

This is a canteen for a walk across the desert, and we don't want to run out of water before we get there.

Entitlements versus competition. There's been a lot of discussion about that.

And then the AB 1890 letter of the law, many of us participated in the, you know, the actual discussions surrounding the passage of legislation. And then the Staff, I think, and the Commission in the report have captured the spirit of it.

The particular wording that relates to dish sterling technologies and the emerging category. What we did is look carefully at that, and it said we could participate if we would meet certain criteria. And those criteria were we would have to have a product and provide a warranty for it.

And my company, SAIC, is willing to provide a product and a five-year warranty or guarantee production from the system. So that the risk is on those of us that manufacture the system. Not on those who will consume the energy.

Technology has to show reliable, predictable, safe performance, and we've detailed in our comments how we believe we can do that and are demonstrating that in systems on utility grids today.

Technology must be designed to work with grids. And we do work with grids, and primarily for the production of electricity for the sale.

And so we believe we fit into the emerging technology, and we believe that the emerging technology has been captured properly in the Staff report and by the Commission.

PRESIDING COMMISSIONER MOORE: Thank you very much.

MR. BUTLER: And one last person is Bob Musica.

MR. MUSICA: Good morning and thank you.

I'd like to start off my comments by indicating with a roomful of people like this with all the various interests, I think the Staff has done a fantastic job in the work that they've done. And I know it's no small project.

I'm here to speak on behalf of Solar Center Receivers or commonly known as Solar Power Towers. My company, Boeing North American, is teamed with Bechtel in San Francisco for this technology. We have completed all of the R&D, and indeed do consider ourselves a clear emerging technology at this particular time.

In accordance with some criteria that was presented on page 14 of the Staff report, there were four items. Mr. Butler has also touched upon those for his technology, but I'd like to address those specifically for the Solar Power Tower technology, also.

First, it talks about a one-year period of reliable operation. We think that's just a prudent business decision. I don't know if any program that we would ever enter into absent a one-year, and quite candidly more than one year, of reliable operation.

We talk about a warranty. We've provided a warranty for the products that we currently provide to the Solar II projects. So that would not be a new requirement. And we could not foresee anyone purchasing equipment for such a project like this absent a substantial warranty period.

We talk about the, or the criteria addresses at least one manufacturer having equipment for sale in the State of California. Very specifically there are many companies in addition to our own that have equipment for sale that are part of this particular type of project. Including Mr. Butler's companies in the heliostat area, and Bechtel, and all of the construction industries in California. We're not talking about one, we're talking about tens and tens of companies that do participate in this technology.

And very clearly we are large in number of megawatts. We are grid connected. And we're not in the business for research. We're in the business for sale of electricity.

So those four specific criteria elements have been addressed, they are addressed in our written comments provided by SEIA and CAL SEIA also. Thank you.

PRESIDING COMMISSIONER MOORE: Thank you very much.

Mr. Sowter, you're going to be our last speaker before lunch.

MR. SOWTER: Okay. Thank you. My name is Richard Sowter. I'm with BP Solar.

We support the comments of CAL SEIA made by Les Nelson and the late comments by Howard Wenger specifically on the photovoltaics requesting that 25 percent of funds from AB 1890 go to emerging technologies and that there be no cap within that sector because it would be an arbitrary cap.

At BP, our business plans investments based on competition. We believe that competition is good. Any industry that first seeks to eradicate competition and relies on subsidies is not a sustainable one. Sustainable market is a competitive market. Competition is a fact of business.

One might suggest that the new and existing technologies look more at their own business plans in support of their own arguments before crying foul at the loss of a percentage of funds from AB 1890 to emerging technologies.

Emerging technologies meet the goals of AB 1890 in that they facilitate the development of a self-sustaining customer driven renewable energy market in California.

The PV technology will stimulate investment that will lead to long-term employment by the manufacturing in the infrastructure to install and support individual PV systems. One only has to look at the success of programs in Germany and Japan to realize the benefits that such a market incentive program stimulates.

The people want solar. By allocating 25 percent of the funds to emerging technologies it would stimulate investment in high volume low cost manufacturing in California. The return on investment in California will be substantial. Employment, and also the opportunity to come into the center of excellence in the US and beyond.

Competition is good. It forces innovation and it is customer led. Strong companies listen to the customers. And the customers, the people, want solar PV energy. AB 1890 can give them what they want sooner and become a blueprint for the rest of the US.

By allocating 25 percent of the funds to emerging technologies AB 1890

will achieve most of its goals and of the people of California.

Thank you.

PRESIDING COMMISSIONER MOORE: Thank you, Mr. Sowter. I appreciate that, and we also appreciate the investment your company is making in the state very much.

With that, I'm going to call a recess. We should return here at 1:15, and we will start off with Mr. Abel, Short and Drake from the Geothermal Institutional Investors Group.

[Luncheon recess taken from 12:10 pm to 1:24 pm.]

PRESIDING COMMISSIONER MOORE: The Renewables Hearing, we're approximately 10 minutes late.

And I'm informed that I was a little lax in the way I was controlling the time in the morning. Without being dictatorial, I'll try and improve on that. And I'll remind you that we like to allocate about five minutes to each speaker. I'm not concerned if you go a little bit over that, but use it as a target to help us make sure that everyone gets heard.

I indicated to the financing people from the Geothermal Institutional Investors that I would take them next, but, in fact, what I'm going to do is allow Mr. Osborn from SMUD to testify before us, and then I'll come back to the Institutional Investors.

MR. OSBORN: Thank you very much. I appreciate the moving that forward so I can get to another meeting.

I'm Donald Osborn, Supervisor of the SMUD Solar Program.

And first off I'd like to compliment the Staff on a very good job in a very difficult situation. We all realize that the resources are inadequate for everything that needs to be done and tough choices do need to be made.

We strongly support the balance between supporting existing technologies and in the investments of our emerging energy future which we believe is the spirit of 1890. Twenty percent is a minimum that should be allocated to emerging technologies in our opinion.

Earlier comments seem to assume that all renewables must depend

upon SRAC and on the very difficult wholesale market. The great strength of photovoltaics and of some other distributed technologies is their ability to succeed in commercialization by competing at the much more favorable retail level.

I should also comment that anyone who characterizes the long-term cost effectiveness of an emerging rapidly improving technology like PV on the basis of today's higher costs is either missing the point or is being misleading in their comments.

In fact, our analysis shows that the proposed PV program results in a viable PV market with costs at self-sustaining eight-cent a kilowatt hour or less levels, a point fully competitive in a retail market.

We strongly urge that we not impose an arbitrary cap on any single technology within emerging. We also strongly urge that the multi-year allocation with periodic reviews and adjustments be made rather than yearly allocations.

The principle sustained orderly development in our own experience at SMUD makes clear the fundamental need for clear, reliable and multi-year commitments to stimulate the investments in new production that leads to lower costs and contributes to the sustainable economic development of our entire state.

Eighty utilities nationwide representing over half of the nation's generating capacity have joined together to form the utility photovoltaic group. They have identified PV as one of the key opportunities for a renewable and economic future.

In summary I would like to propose that we allocate at least 20 percent to emerging, 25 may be a more appropriate investment in our energy future, as that investment coming out of 1890, that we remove any arbitrary cap within emerging and make firm multi-year commitments to the PV component.

I would propose that we fully fund \$96 million allocation to PV and simply comment that while we cannot be all things to all people and all technologies, is better to try to succeed in a few targeted areas than to try to spread the money over a large number of areas and fail at many things.

The triage principle that the Commission Staff has suggested is perhaps a most apt analogy.

Thank you very much.

PRESIDING COMMISSIONER MOORE: Thank you. Appreciate your comments.

The gentlemen from Geothermal Institutional Investors, if you all three want to come up, be seated at the table, we'll entertain your comments.

MR. ABEL: Good afternoon. My name is Ric Abel. I work with Prudential.

We have Larry Drake who represents CIGNA, and Bill Short who has helped bring together some of our ideas to sort of formulate a small group.

Doitcha Bank [phonetic] was unfortunately not able to be here today.

The first thing I'd like to do is just make the Commission aware of our contribution to the renewable energy industry in California as well as the, more specifically, the geothermal technology. Between these three institutions we have invested \$650 million in 400 megawatts of geothermal power in the State of California. That number is much much larger when you look at all of the renewable technologies within the State of California, and we would request that our viewpoint be heard.

The main point that we want to make today is that I think that the Commission asks the existing industry players to go away and try to develop a consensus. I think they worked very hard to do that, and they did a very good job, I think, or the lending community that we represent thinks, and would ask that the Commission reconsider the way they've allocated the funds.

We have entered our comments under the geothermal industry because we feel that the other industries have taken the existing technology, the interest of the existing technology, into consideration in putting their proposals together. Whereas the geothermal industry, which is represented by the GEA and more specifically primarily one player in the GEA has not really focused on the existing players.

There is approximately 150 megawatts of smaller generating geothermal power. It is more expensive to operate than some of the larger facilities, and we would ask that those 150 megawatts get a similar treatment that you are

giving to biomass and some of the other industries.

When we look at the industry overall, as Tom mentioned when he was up here, that there's really only three projects of new development in the geothermal industry. Primarily an expansion and two new projects. It amounts to approximately 150 megawatts. We have, more or less, 150 megawatts of power that costs a little bit more and feel that the allocation of funds distributed more along the idea of 50/50 is more appropriate between existing and new technologies within the allocation to the geothermal.

So the two main ideas that we would like to leave you with is that we think that it's appropriate for there to be 27 percent allocation to the geothermal industry. I think if you look at the chart that the CEC put together, the Staff, it shows that 40 percent of the capacity is produced by geothermal. And the dollars that are used to support that industry will be very effective in creating more power.

And the second point is that we would like you to seriously consider that there is about 150 megawatts of geothermal power that does need some help to get through a transition period to be able to survive.

We have supported this industry. We continue to support the industry. All of us are actively investing in additional projects. And to the extent there is new development in the industry, we will very likely be at the table supporting that industry and would ask that we get fair treatment.

So that's the main comments I'd like to make. I don't know if anybody else.

MR. DRAKE: In the interest of time, we thought we'd just leave it at one set of comments, but I think it certainly does, you know, we appreciate the opportunity to at least make these views known and sorry that we were not involved at an earlier stage in the process.

PRESIDING COMMISSIONER MOORE: So am I. But I do appreciate the efforts that you made to communicate with Staff. I know that you had a special meeting this morning to talk about that, and we appreciate the extra effort that you're making.

Jan, do you have any questions?

COMMISSIONER SHARPLESS: Yes, I do. I'd just like to be clear. I think I know the general tenor of your comments, but in terms of the division of allocations, are you suggesting that more money for geothermal should be put in existing?

MR. ABEL: Yes.

COMMISSIONER SHARPLESS: And what percentage would that be?

MR. ABEL: We feel that overall the concept that Mr. Carlson put forth that really 60 percent of the monies initially ought to go to existing technologies.

COMMISSIONER SHARPLESS: But that was for all technologies.

MR. ABEL: Right, all technologies. We feel that the application within the geothermal group ought to be similar. In other words, we don't expect that that, if SRAC cooperates, that anywhere near that much would be spent. But it would be nice that initially that level of support be made available to the extent that SRAC prices stay very low.

So the idea that 60 percent would be allocated to existing technology, those funds would roll over, that somewhere between a cent to a cent-and-a-half would be the cap, you know, a single cap, and that the overall market price would be somewhere in a four to four-and-a-half-cent SRAC. And that would be the target.

To the extent that SRAC was at four-and-a-half cents, no money would be distributed. And that money would be rolled forward. To the extent there's extra money available at the end of four years, we see it's a high probability that more than 60 percent of the funds will be available at the end of the four years.

COMMISSIONER SHARPLESS: Well, let me ask you about new. If a new project comes to you, would you be looking at this project to provide its customers with competitive priced energy, or would you be looking at some support, some type of support, in order to provide necessary financing?

MR. ABEL: The analysis that's done primarily by the lending community is on a cash flow basis. You have a certain number of dollars that go into the project from a debt perspective. You know, a certain level of coverages. You know, whether that be one-and-a-half or two times would be expected, and we would analyze what the certainty of those cash flows are.

The more that the Commission in putting together a proposal can create a stable price in the marketplace by putting a floor in place, to us that is what's going to help new projects get financed. But we don't really take issue with how the industry wants to structure that and would defer to really how, you know, they want to get their new development done.

They're very aware of the requirements that the lending community have, and I think we would rather not complicate the waters by changing their approach.

COMMISSIONER SHARPLESS: The real question I'm asking is from what I hear you saying it would sound to me like what you would like to see this institution do is put most of the money in existing to cover current investments. And hopefully that within the four years that this money is spent that those investments will be able to support themselves in a competitive market because that's the end of the money. That's the reality.

The new money, I don't know, you know, why you would be asking us to put any public funds into the new money category because you would be basically looking at each one of those projects from whether or not they meet the general requirements that you're looking for on whether or not they're good investments.

MR. ABEL: That's true.

COMMISSIONER SHARPLESS: Why should, based on bankers' mentality, why should the State of California put any money for geothermal in the new category?

MR. ABEL: Because I think overall renewable energy is good for the State of California on a --

COMMISSIONER SHARPLESS: Or what if it can be competitive?

MR. ABEL: Excuse me?

COMMISSIONER SHARPLESS: What if it can be competitive?

MR. ABEL: If it can be competitive straight up, then, you know, I think each deal should be looked at separately. And if it can be competitive on a straight up basis, then it shouldn't need any money.

But I think the point is, is at least historically, renewable energy has

cost more. It's had higher capital cost in order, you know, as compared to gas fired technologies. So the amount of equity dollars that would be required in order to get the debt comfortable in a transaction would be extremely high. And the return on those equity dollars would not be sufficient, would not provide a sufficient return to those equity dollars to warrant them to be invested. So basically you would not have that facility developed.

I don't believe that on a straight up basis that the geothermal energy industry would represent that they can compete with gas fired technology without any help whatsoever. And I think that that's why they're here trying to make the argument that there ought to be financial support.

COMMISSIONER SHARPLESS: On the front end costs.

MR. ABEL: To me you can structure it one of a host of different ways. You know, whether it's at the front end, whether it's put over time in the form of a price support so that you have more certainty of cash flow over time, you know, is really the choice of the Commission or the Staff or the developers.

We would defer to them. They are aware of what the financial community will need, and it's their project that they're developing ultimately.

COMMISSIONER SHARPLESS: Thank you.

PRESIDING COMMISSIONER MOORE: Thank you, gentlemen.
Appreciate your time.

Bill Julian.

MR. JULIAN: Thank you, Commissioners.

I'm here talking on a consumer's side approach that focuses on the third policy objective that's in the Staff report, and that's facilitating the development of a self-sustaining customer driven renewables market in the state.

I've given you a concept paper that is predicated on the belief that creating a large organized and self-sustaining organization of renewable buyers is an effective way to assure that the benefits and diversity of the renewable industry are maintained and to assure that there is a strong base of market support in the form of organized consumers for emerging technologies after the transition to a competitive both power markets have been completed.

The concept is straight forward. Use a portion of the customer provided renewable funding authorized by AB 1890 to create a consumer owned and controlled cooperative entity which initially procures and manages a portfolio of renewable resources on behalf of its member owners.

Upon achieving appropriate scale in terms of members and capitalization, the cooperative would support new renewable projects and deployment of emerging technologies as its consumer members decided.

This is a dynamic organizational approach to developing market support for renewable energy sources. The emphasis is on the process of organizing green consumers effectively and giving them real power in the market.

Noted I've basically three categories of considerations in the concept paper. First is the issue of feasibility. This is a cooperative that would primarily but not exclusively focus on residential consumers. Have a membership target after five years of 300,000 member owners. A size which would make it equivalent to a medium sized utility by national standards and should be in a position thereafter to support construction of new projects in emerging technologies.

Survey research indicates that 10 percent of California electric consumers would be willing to pay a premium of up to 10 percent over current bills to purchase renewable energy. This suggests over one million potential cooperative members in California.

Ideological buyers of renewables, which is what we're talking about, can be identified readily through appeals to members of existing environmental organizations, such as the Sierra Club, consumer cooperatives and other non-profit entities and associations.

And just to give you an idea of the scale we're talking about, roughly 300,000 environmental organization members in California, half a million consumer cooperative members, five million credit union members.

The same survey research is the predicate for various green pricing proposals pursuant to which ideologically motivated consumers can make a contribution to the environment through their purchase of renewable or other environmentally benign electric generation technologies.

Green pricing proposals sometimes met with skepticism because of the obvious potential for exploitation. The cooperative model assures these consumers that when their ideological commitment is translated into a purchasing decision they have maximum control over the nature and extent of that commitment.

Co-ops are predicated on the principle of one person, one vote, assuring a governance structure that reflects consumer choices. Cooperatives earnings belong to the members who may accumulate them in capital accounts or take them out as patronage refund that's effectively reducing the cost of the energy they buy.

At the national level the organizational resources and experience exist in the cooperative movement to establish a tightly organized and managed consumer cooperative organization. The National Electric Cooperative Association, NRECA, and the National World Utilities Cooperative Finance Corporation have both the expertise and the financial wherewithal to assist in the organization and management of the entity.

By the way I should indicate that this concept paper is sponsored by the Plumas Sierra Electric Co-op which is the co-op in California.

Second, a second consideration is leveraging AB 1890 funds. This approach to the development of the consumer's side of the market offers important opportunities to leverage 1890 funds. AB 1890 anticipates voluntary contributions to support renewable energy technologies.

Instead of putting that on a charitable basis, member contributions to the capital accounts of a substantial cooperative is an appealing form of socially responsible environmental investment.

Second, the cooperative model contains features that promise electric resource procurement by consumers will be accomplished at the lowest possible cost. Cooperatives are non-profit entities which may be either tax exempt pursuant to 501-C of the Internal Revenue Code or their functional equivalent of tax exempt pursuant to Subchapter T of the Internal Revenue Code which permits the deduction of membership, deduction by the cooperative of membership patronage refunds.

The effect is to provide consumers with the ability to purchase at cost and/or share directly in profits while minimizing taxes and overhead. This is an important consideration in maximizing the value and reducing the cost of the green purchasing decision.

The proposal uses AB 1890 funds to support start up and membership development costs for an organizing process intended to become self-sustaining. This promises to provide significant market power for green buyers far beyond the period of collection of AB 1890 funds.

The mechanics of this proposal anticipate that there are basically two sets of transactions that are necessary in the initial phases of this organizing effort. First is creating the renewable portfolio, and second is organizing members to make direct access purchases of renewables from the portfolio.

The portfolio would initially be constructed from existing renewable resources. The cooperative would probably assemble the portfolio initially through bilateral negotiations of a series of call options with the call provisions contingent on membership development.

The cooperative might contract with entities who are receiving AB 1890 funds distributed as production credits but would not expect to receive direct subsidies from AB 1890 funds in the form of consumer rebates.

The objective of this proposal is to develop a cooperative membership that expects to pay unsubsidized market prices for renewable energy but which will aggressively pursue the best deal possible in the market from renewable providers and may drive the market if the membership attains sufficient size and scale.

The renewable content of the portfolio would be decided by the cooperative members. The portfolio would be priced at cost plus an operating margin that would reflect the cost of providing billing, member communication and development and capitalization as needed to support resource procurement.

Initially the cooperative would contract with some other entity to provide scheduling coordinator services. And that will be a complicated set of issues.

The second set of transactions is the organizing process of signing up

members and structuring their relationship with a cooperative entity. Membership development would be undertaken through a variety of media. The cooperative would expect to use AB 1890 funds for the second, for this portion of the activity, not for the portfolio development or pricing subsidy.

The cooperative would expect to be in the market by mid-summer 1997 under the provisions of AB 1890 with appropriate contractual arrangements for scheduling and dispatch.

At this point all I can say that this is a concept which does not partake exactly of either the consumer education or the customer rebate portion of the customer side, but it's an attempt to answer the question, "Who's going to buy renewables?" and by proposing an entity which will be a renewable buyer made up of and controlled by green consumers.

Thanks.

PRESIDING COMMISSIONER MOORE: Thank you.

COMMISSIONER SHARPLESS: Excuse me.

PRESIDING COMMISSIONER MOORE: Jan.

COMMISSIONER SHARPLESS: You have caveated this by saying that this is concept paper, but do you have any dollar range as to what you think might be required?

MR. JULIAN: My guess is that it's a small fraction of the consumer side dollars that are identified in the report.

To some extent it depends on the scope of organizing activities that are undertaken initially. The 300,000 target is, you know, is one set of cost, 500,000. The 800,000 is another, 5 million is another. Depends on the scope of the organizing activities, but it's intended, it would be a small fraction of the customer side dollars.

COMMISSIONER SHARPLESS: Thank you.

PRESIDING COMMISSIONER MOORE: Thank you very much.

Wayne Rafflesberger.

MR. RAFFESBERGER: I do have copies of my very brief remarks here.

Thank you Commissioners Moore and Sharpless. My name is Wayne Rafflesberger, and I represent my family's company Coast Intelligent Inc. We are a

small family owned company manufactures microcogenerators.

I've been before you before, both as a subcommittee and as a full Commission on this issue, and I really have very little to say today other than my gratitude and thanks to the Staff, your staffs, the Energy Commission's staffs, for your recommendations.

I certainly endorse them. That microcogeneration installed for self generation purposes be exempted from the CTC. Staff is absolutely correct in stating that cogeneration is energy saving. Has been long recognized by state and federal policy and above all a demand side management strategy.

Beyond that I really have nothing to say other than thanks very much, and I appreciate again the courtesy that you have all shown me to date in this process.

PRESIDING COMMISSIONER MOORE: Thanks. We appreciate your support.

MR. RAFFESBERGER: Thank you.

PRESIDING COMMISSIONER MOORE: Traci. You have to cover both your clients at once.

MS. BONE: I understand that.

Commissioners, Staff, my name is Traci Bone. I'm here on behalf of two clients today.

Before I tell you where we think the Staff report needs to be changed, we would like to commend Staff for producing its report under tremendous time constraints. And I appreciate the opportunity to address you here today about some of the issues that we think need to be resolved.

First, I'm here on behalf of Texas Ohio Energy. As you no doubt recall, Texas Ohio Energy markets a product called the VOC GEN which generates electricity from volatile organic compounds which are industrial pollutants.

I've explained to this Commission how the VOC GEN works, and I'll not take your time today to explain them again. However, I would like to reiterate a few points. Each VOC GEN generates approximately 500 kilowatts in the process of eliminating VOC. The number of VOC GENs installed in an industrial facility

depends upon the amount of VOCs which must be eliminated.

A facility which has few VOCs may only require one VOC GEN. A larger facility or a VOC intensive industrial process may require additional VOC GENs to meet air emission requirements.

Texas Ohio has requested the Commission to recognize an industrial facility's installation of a VOC GEN as a change in usage occurring in the normal course of business, not subject to CTC, pursuant to Section 371 of AB 1890.

Texas Ohio has two concerns with regard to the Staff's report VOC generation recommendation:

First, the Staff report does not address Texas Ohio's claim that it be classified as a Section 371 change in usage. Instead the Staff report recommends an explicit exemption from CTC for VOC GEN type facilities.

Second, the Staff report caps this exemption to one megawatt. The installation of no more than two VOC GENs in a facility.

With regard to the explicit exemption, while Texas Ohio appreciates the explicit exemption granted to VOC generation, Texas Ohio prefers to be recognized as a Section 371 change in usage rather than granted this explicit exemption. Such a legislative recommendation would be more consistent with AB 1890 and where VOC GEN actually falls within the law.

With regard to the case by case review for any VOC GEN installation over one megawatt, the Commission should be aware that this proposal is simply unworkable from a marketing perspective and will force Texas Ohio to pursue VOC GEN business opportunities in states with more favorable regulatory environments.

If the Commission has any question about this assertion, Gene Satrap, the President of Texas Ohio, is here today and is prepared to address them. He's sitting right back here.

There needs to be a commercial reality imposed on the arbitrary regulatory constraints. And with this in mind, Texas Ohio proposes two alternatives to the one megawatt cap in order to meet any Commission concern that an energy producer would be able to abuse the VOC generation provision to build large cogeneration facilities.

As its preferred alternative, Texas Ohio proposes language which would expressly limit VOC GEN type installations to the size necessary to eliminate pollutants. Such language would require that a VOC GEN installation be sized solely to an industrial facility to meet pollutional elimination needs and not solely to generate electricity. Texas Ohio's written comments, which I'll submit today after I speak, contains such proposed language.

If the Commission prefers an explicit exemption from CTC for VOC generation and a cap on generation, Texas Ohio could operate in California under a four-machine cap. Any installation of over four 500-kilowatt machines would be subject to case by case review by the Commission to determine that the installation is designed primarily to eliminate industrial pollutants.

In summary, Texas Ohio respectfully requests that this Commission recognize VOC GEN installations as a change in usage pursuant to Section 371. However, Texas Ohio would be satisfied with an explicit exemption. Whether characterized as a change in usage or an explicit exemption, a one-megawatt cap would make California an unattractive market for Texas Ohio.

Consequently, Texas Ohio proposes two alternatives to meet the Commission's concerns, and we hope that you will implement one of them.

Thank you. That's on behalf of Texas Ohio.

And I'll move on to my next client. I'm also here on behalf of Oxbow Power Group, and I'm commenting upon the Staff report's proposed certification procedures.

The Oxbow Power Group and its affiliates are dedicated to developing, owning and operating independent power generation projects in both the United States and worldwide. One of Oxbow's power plants, Oxbow Geothermal, has facilities located both within California and outside the state.

Oxbow Geothermal is a California facility by any objective, factual, legal or physical standard, and unquestionably qualifies for the renewable provisions of AB 1890. Oxbow Geothermal paid approximately \$120,000 in property taxes in 1996 to Inyo and Mono Counties for its QF facilities located in those counties. Absent Oxbow Geothermal's physical presence within these counties they would have no

jurisdiction to assess these taxes.

In 1995 Oxbow Geothermal paid \$602,000 in California income taxes on the revenue from its electric sales to Edison. Oxbow Geothermal expects to pay approximately \$900,000 in California income taxes in 1996. Which would mean that Oxbow plans to spend over a million dollars in taxes in California this year.

In 1988 FERC, which has the exclusive jurisdiction over QF status determinations, certificated the entire Oxbow Geothermal facility, including the facilities both within and outside California as a QF.

Despite meeting all the obligations of California ownership and operation, the Staff report's propose certification program eligibility requirements potentially precludes Oxbow Geothermal from receiving any renewable benefits under AB 1890. The Staff report unnecessarily requires a renewable resource technology to have its generation facilities located within California.

Oxbow Geothermal produces approximately 56 megawatts of power from geothermal reservoirs located outside of California and then delivers the power to Edison over a 214 mile, 230 kV transmission line to Edison substation in Bishop, California.

By requiring a renewable producer to have generation facilities in California, the Staff report certification and eligibility proposal misconstrues the instate provisions of AB 1890 and prevents Oxbow Geothermal, which has operational renewable facilities in California, from receiving any of its benefits. The result is contrary to the intent of AB 1890, contravenes FERC's exclusive jurisdiction over QF status determinations and violates the commerce clause of the United States Constitution.

First, ready for this?

[Laughter]

PRESIDING COMMISSIONER MOORE: Does it get better or does it get worse?

MS. BONE: AB 1890 does not require a renewable energy producer to have 100 percent of its facilities, or even specifically its generation facilities, in California. It only requires that there be instate operation. Therefore, the Staff

report's limitation to generation facilities is unnecessary.

Second, FERC has determined that Oxbow Geothermal's transmission and generation facilities cannot be separated. Oxbow Geothermal would not have been developed without this determination.

Consequently, implementation of the Staff report would contravene FERC's determination that Oxbow Geothermal has operational renewable facilities in California.

Third, the commerce clause of the United States Constitution prohibits states from discriminating against interstate commerce. The Staff report violates the commerce clause by taxing all electricity sold in California and then giving the money to only facilities located wholly within California. This discriminates against those like Oxbow Geothermal who straddle the state line.

Oxbow Geothermal will be submitting more detailed written comments on these legal issues on January 22.

Finally, because Oxbow Geothermal has operational California facilities and all the associated tax burdens associated with California operation, it would be fundamentally unfair and unnecessary for the Commission to arbitrarily exclude Oxbow Geothermal from participating in the AB 1890 programs on the purported basis that it is somehow not a California energy producer.

The Staff report certification procedure should be amended to permit renewable projects with California facilities like Oxbow Geothermal to participate in AB 1890's renewable program.

Thank you. Any questions?

PRESIDING COMMISSIONER MOORE: Well, I would simply note that you'd make a pretty strong argument for tire burning in Arizona as well under that provision. Something the Staff has been wrestling with as well.

MS. BONE: Well, under that provision the tire burner in Arizona isn't investing the money that it's going to take to build the transmission line to get all the way to California.

PRESIDING COMMISSIONER MOORE: There may be access charges to it, though, which in turn get invested in it. So that may be a very fine line. I'm

not sure how FERC is going to come down on that, and I don't know how the ISO is going to come down on that.

So you've opened up, I'm just saying you've opened a very big can of considerations that we'll have to take on.

[Laughter]

PRESIDING COMMISSIONER MOORE: Let me just add -- do you have questions, Jan?

COMMISSIONER SHARPLESS: Well, certainly I think that the Committee has been wrestling with this issue and still wrestles with it, so your comments, you know, just add to the consideration.

But back to your other client, I think one of the concerns -- and I certainly understand both sides here. But one of the concerns might have been that there needed to be that type of limitation looking at who else might qualify. Not just VOC GEN, but perhaps biomass might see themselves as qualifying under that same type of provision. And so that in the sweep of things we would be bringing biomass in with the CTC exemption.

Does any of your language deal with that issue?

MS. BONE: Right now the Staff's language is very specific to facilities that burn VOCs as fuel, which has to do with Texas Ohio's product, the VOC GEN. And to the extent that you need to limit it in that way we're certainly appreciative of that and supportive of that kind of a limitation.

However, our big concern is that the one megawatt limit just doesn't work for us because it makes California too difficult of a place to market. We're looking at facilities that are going to use anywhere from one to four machines, and to have to run to the Commission every time we're looking at a facility would just make it very difficult.

So a two-megawatt or four-machine limitation works for us, and we've proposed language that I think will be very limiting and will meet the Commission's concerns in that way.

COMMISSIONER SHARPLESS: Does Staff have any questions about this point?

MR. MASRI: Well, only to comment that the bill really does not say VOC GEN. It says cogeneration utilizing pollution as a fuel.

MS. BONE: Yes.

COMMISSIONER SHARPLESS: And so the issue would be if the Staff were to write such a provision in the report whether or not it would be construed that we could be so narrow; okay? Think about it.

MS. BONE: Okay.

PRESIDING COMMISSIONER MOORE: Thank you. Thank you, Traci.

Let me just take a second to remind people I've heard a number of comments about the 22nd. That was our cutoff date for submission. But let me point out to you that Staff is going to be pretty overwhelmed, as will we, if everything arrives on the 22nd. If your remarks are already in preparation or complete, please don't wait until the very last minute.

The second comment is that our home page, for those of you who have asked, and let me just remind you, is under energy.ca.gov, and then under restructuring. So after restructuring you get into renewables. The sub-categories are pretty apparent on the page.

I just wanted to put it out. You've got a number of choices. You can get transcripts, you can get to the workshop hearing notices, you can go around through the Commission products; but for the stuff we're interested in, it is on our home page.

Thank you.

Vince Bartolomucci?

MR. BARTOLOMUCCI: Good afternoon, Commissioners. My name is Vince Bartolomucci from San Diego Gas and Electric. You've done better than most.

In general, San Diego applauds the Staff's efforts in its ability to balance the varying interests of the renewables community. SDG&E, however, does have a couple of areas of concern regarding Staff's report.

If the areas of concern that I'm about to delineate here are resolved,

then SDG&E would support Staff's report. SDG&E will also be filing its comments hopefully before the 22nd.

The first area of concern that SDG&E has is regards Staff's recommendation to establish CTC exemptions for micro cogeneration and other pollution abatement generation.

As the Commission is well aware, much effort went into the formulation of AB 1890. And I, for one, am still somewhat amazed that with the amount of parties that participated in that process that agreement of anything was accomplished. However, I think there are a lot of parties that would take the opportunity, or would like to have the opportunity, to go back and revise various provisions of the bill. Unfortunately I think, as is probably you're just as aware as I am, if that was allowed to happen, probably the whole structure of the bill would crumble.

Staff's recommends in its report that microcogen, VOC generation and other pollution abatement generation be exempt from CTC. Nowhere in the bill that San Diego was aware of has the Commission been provided with the authority to recommend CTC exemptions.

AB 1890 was very clear in delineated certain limited exemptions, CTC exemptions, for various types of, one of which was certain types of cogeneration in certain instances, irrigation districts, to name two.

What the bill did, the language in the bill did ask the Staff and did ask the Energy Commission to recommend whether additional mechanisms are necessary to promote micro cogeneration and other pollution type abatement generation sources but did not give the Commission the authority to recommend CTC exemptions.

In fact, Staff recognizes that the bill provides the utilities the ability on a voluntary basis to seek CTC exemptions if it's believed it's appropriate for those facilities. So consequently SDG&E would recommend that the, and ask the Commission not impose additional regulations not contemplated in the bill in this process.

The second area of concern that we have regards the Staff's

recommendations regarding fuel cells. The provisions of AB 1890 did ask that the Commission look into whether fuel cells should be determined as fuel switching for the purposes of determining whether existing load, or changes in existing load should be deemed to be fuel switching, or I can't remember the exact characterization.

Staff, however, does not present any evidence which would support that fuel cells should be deemed to be fuel switching. And SDG&E at this time is not aware of any analysis that would support that. As such, San Diego at this time is opposed to fuel cells being deemed fuel switching, and, therefore, also being subject to a CTC exemption.

I think, also, I would have to say that I believe that the Commission in its report should not be recommending such an exemption without having conducted an analysis in support of that conclusion.

The last point that I wish to make regards Staff's recommendation that there be some provisions put into the Commission's recommendations encouraging buyouts. While San Diego certainly supports mechanisms that would encourage buyouts of uneconomic QF contracts, we're not sure that this is the place for those types of provisions to be included.

And certainly Staff doesn't, or I'm not aware that in their draft report Staff has proposed any specific provisions. There is an ongoing process at the CPUC for which comments are due on February 10, and there are ongoing processes that are looking into mechanisms that would encourage buyouts or restructuring of QF contracts. And Staff would recommend that the Commission, and certainly Staff, participate in those process to develop comments to submit to the CPUC.

Thank you for your time. That's all the comments I have unless you have questions.

COMMISSIONER SHARPLESS: Along the lines of the contract buyouts, I think it became clear to the Committee that there is a connection between building a market and the current contractual provisions so far. And I've seen so many drafts of this report that I'm not quite sure any longer exactly, but I think that there's a discussion of the connection there. But at this point there's no

recommendation other than the fact that there is a connection and something ought to be done about it.

MR. BARTOLOMUCCI: I don't necessarily disagree, Commissioner Sharpless, that there is a connection.

However, without having anything specific from the Staff, it's hard to evaluate whether anything that's proposed here would conflict with other items that are going on at the CPUC.

COMMISSIONER SHARPLESS: Well, nothing is proposed here.

MR. MASRI: Nothing specific.

COMMISSIONER SHARPLESS: Nothing specific.

MR. MASRI: May I make a clarifying point, please?

Because we did do analysis on fuel cells, in fact, we had intended to have an appendix in the interest of cutting the report short that contains further details on some sections. And that's one of them. That will be forthcoming in the next report. We did an extensive analysis of fuel cells to arrive at this conclusion. I just want to make that point.

And as far as the exemption from CTC, you're right that the bill talks about that the report considers mechanisms to make these technologies more competitive. Certainly this one mechanism that doesn't specify what mechanisms we can or cannot consider. And so the industry came before us and asked for that kind of mechanism, and that's how we include it. But it certainly is one mechanism that would fit under something that would make a technology more competitive.

MR. BARTOLOMUCCI: No. Obviously that is. I think, though, again where I'm coming from, Marwan, is that there was a lot of thought put into the bill, and one of the things that I think all three utilities were very adamant on in the negotiation that CTC exemptions not be continued to be included. And, again, we came to some resolution there were some specific exemptions.

So I mean my two comments really are one, yet that wasn't the intent of AB 1890 to continue to allow for more and more exemptions of CTC. In fact, that goes contrary to the intent of AB 1890 which is to allow the utilities to recoup CTC as quickly as possible.

The second thing is that if Staff is going to propose some sort of, or if it believes that micro cogen or other types of self generation should require some sort of added support, then what we would like to see is some analysis of indeed is that true. Do they require the report? Because right now we don't have anything that would indicate that they should be or require anything to be competitive other than the provisions already in AB 1890 regarding cogeneration.

So I think that's the first thing that we would like to see. But certainly we would definitely oppose anything that would go back and recommend that CTC exemptions be involved.

PRESIDING COMMISSIONER MOORE: Vince, one last question for you. Does SDG&E have standard offer contracts that are in any way up for negotiation right now?

MR. BARTOLOMUCCI: We have -- certainly we don't have as many as the other two utilities, but, yes, we do have some. We have some ISO4s, we have some landfill gas, we have some SO1s, we have some SO2s. You know, we're in negotiations with some of those to attempt to try to restructure.

PRESIDING COMMISSIONER MOORE: So, and I'm not trying to get into any of the details certainly in a public hearing, but is the word "negotiation" a fair approximation of what's going on, or are they simply being looked at as something that could happen or might not happen? Is there any active negotiation going on?

MR. BARTOLOMUCCI: I'm not familiar with the details of what our contracts people are doing. I am aware certainly we are looking at those contracts that we believe are possibilities.

But I believe that there are some active discussions going on, yes. But, you know, even if I knew I wouldn't be at liberty to tell you.

PRESIDING COMMISSIONER MOORE: I should probably close it off if you started to. This is not the place for it.

Thank you very much. We appreciate your time.

MR. BARTOLOMUCCI: You're welcome. Thank you.

PRESIDING COMMISSIONER MOORE: All right. Kathleen Treleven.

MS. TRELEVEN: I'm Kathy Treleven, and I'm here for PG&E.

We very much appreciate the compromises both industry and environmental groups have put before you, and particularly think that the Staff's thoughtful draft is a springboard that perhaps in the best spirit of AB 1890 could lead to a proposal that everybody can agree with for the Legislature in March.

We, too, have very few comments at this time on the report. Our comments have been handed out, I noticed, already, so if others want copies, please just give me a card and I'll be sure they're sent to you.

Generally we're just addressing the QF buy out renegotiation issues raised in the report. At heart they're this: We are open to renegotiation. We have a couple dozen renegotiated contracts in the pipeline. And the problem isn't so much capacity payments as you mentioned in the report, the problem is that it's hard to reach resolution on these things and get them through the Commission, the CPUC Commission.

The CPUC is working on this. There's a filing February 10, and there already have been some filings about renegotiation restructurings.

I'm aware that both the Energy Commission Staff and the CPUC are talking about areas of overlap. I see this as an area that really is dominantly in the CPUC's forum but is important for the issues that you've raised in the renewables side to be addressed there.

In general I'd like to just point out that in negotiations all kinds of things are on the table, and the high capacity payments that you mentioned, which are somewhat a deterrent to termination, are just another currency in renegotiation. And all kinds of market outcomes are possible. And we're very hopeful that in those renegotiations the unique characteristics, the differing viability of the contracts and the desire to have benefits for all parties concerned can be worked out.

Thanks very much. And our power contracts staff would be available to answer more questions if you have any more specific ones.

PRESIDING COMMISSIONER MOORE: Thank you very much.

Robin Walther.

MS. WALTHER: My name is Robin Walther. I'm here representing

Southern California Edison Company. And we, too, appreciate this opportunity to comment on the Staff draft policy report.

We've got two primary concerns that I want to focus on today, and then we have a number of other concerns that we will be addressing in detail in our written comments which are not available yet, but they will be available before the 22nd.

Our two concerns are the first one is with the negative implications of the proposed allocation of funds on our present efforts to restructure the qualifying facility contracts with renewable developers.

We believe that contract restructuring should be encouraged to facilitate the competitive market, and I'll get into more detail about our specific concerns and our recommendations in a few minutes.

And, second, Edison does not believe that there is any overriding public interest to support the Staff draft proposed CTC exemptions for facilities that utilize electricity generated from environmental pollutions. You know, the VOC cogen technology, microcogen or fuel cells. In other words, we oppose the proposed CTC exemptions that have been recommended.

With regard to our first concern on the negative implications on our QF contract restructuring, Edison fully supports the Staff draft comment which encourages contract restructuring for QFs that rely on renewable resources. However, we're very concerned that the Staff draft proposal for allocating renewable funds to existing renewable projects, if that's not modified, would discourage the restructuring of existing regulated contracts by increasing buyout costs.

Our initial recommendation is that these renewable funds to be allocated only to projects that receive market energy and capacity prices. QFs operating under existing ISO4 and SO2 contracts should become eligible when their contracts have been restructured and they are being compensated at market energy and capacity prices.

We believe that allocating the renewable funds in this manner will meet the intent of AB 1890 by rewarding the most cost effective generation and will create an incentive for QFs to restructure their existing contracts.

The process in terms to restructure contracts with renewable generators is being determined as has been discussed by the other two utility representatives by utilities in the respective QFs and does require authorization by the CPUC.

We appreciate the efforts that the CEC is involved here, but we believe that this is largely an issue for the PUC as well. The details of the negotiations.

Now let me turn to the issue our second concern, which is these recommended CTC exemptions. The present Staff draft does recommend CTC exemptions for microcogen and VOC generation, which is really one form of environmental cogeneration, and that fuel cells be found to fall within the definition of fuel switching for purposes of these exemptions.

Edison, I don't know what the right word is, whether it's strenuously or vehemently, but we do oppose these proposed CTC exemptions because we do not believe that there is any overriding public interest for these proposed exemptions.

All the proposed exemptions would result in the shifting of transition cost recovery to the other ratepayers of the investor-owned utilities. This shifting of cost from customers receiving the exemptions to the utilities' remaining customers would violate the policy objective of AB 1890 that the move to a more competitive generation market should be done without undue cost shifting.

The proposed CTC exemption for micro cogeneration would also provide an incentive for parties to substitute higher cost micro cogeneration technologies for lower cost options. The CTC exemption would not promote cost efficiency in the electricity market in our view.

Edison does not believe that there's also any basis for arguing that micro cogeneration is a form of demand side management and thereby eligible for CTC exemptions under AB 1890.

Micro cogeneration is a technology that generates electricity as opposed to managing the demand for electricity. Because the generation of electricity is located in many instances on the customer's side of the electric meter does not change the basic function of this technology.

And moreover, this Commission and others have consistently

characterized micro cogeneration as one of many supply alternatives and not as a demand side management alternative.

Now with regard to the CTC exemptions for VOC cogen and other environmental cogeneration, these, too, are merely another form of cogeneration, or generation. In addition, our analysis, and this is analysis that we'll be presenting in our comments of VOC cogens, suggests that relative to other approaches for dealing with VOC emissions this technology does not provide any overriding environmental benefits.

In fact the analysis that our people have done suggest that it actually increases emissions as opposed to decrease.

We will present this analysis, as I mentioned, in our written comments, and we recommend that the Staff do the same, that they look at this quite carefully.

Finally, we're also concerned that there's no substantive definition of the VOC cogen, and that this could lead to significant abuses. And so if the CTC exemptions are to be recommended for VOC generation, a position that we do oppose, but if it's done, Edison recommends that VOC generation be defined based on the extent of which VOCs need to be present for electric generation to qualify as VOC generation.

In other words, you know, how much VOC generation do you have to destroy in generation in order to be called a VOC generation unit? Is it just the ambient level? It's got to be more than that in our view.

Turning to fuel cells. Again, fuel cells are not different than any other form of generation technology. They are not a form of fuel switching since fuel cells produce kilowatt hours as do other forms of electric generation.

As with micro cogeneration and VOC cogeneration, Edison opposes the proposed CTC exemption for fuel cells. We don't believe there's any overriding public interest to justify the proposed exemptions. We will be very interested in looking at the CEC Staff appendix that was mentioned in the report, but as I understood was not available at the time to provide to us.

So in other words, you know, to summarize we strenuously oppose the

CTC exemptions. I think I've made my point clear by it now. We have some additional concerns that are more of a policy level with the allocation mechanism, and I'll mention a few of them.

We're concerned about whether the proposed allocation mechanisms will actually reward the most cost effective renewable generation which is consistent with the stated purposes of AB 1890. We are concerned that the administrative burden associated with these proposals may be quite burdensome to the overall process, and again will not result in the most cost effective use of the state's funds.

We are also, another concern we have is that there is no place in the report where they ever address the issue of how the existing, the collection of the funds is related to the commitment of the funds. And we believe that it would be much more effective for the people who receive the commitment of funds if only funds are committed that have already been collected.

So you don't, you know, we keep talking about 540 million or 465 million, well, until we actually get that money collected, we shouldn't be committing it to a developer. That's our view.

So in closing we do support the overall objectives that were presented by the Staff, and we have relatively few problems with the certification approach of the renewable providers. We do believe that's necessary to protect utility customers from misrepresentation of green marketers. And we will continue to participate actively in the process of the renewable area.

Thank you.

PRESIDING COMMISSIONER MOORE: But other than that you think we got it right.

[Laughter]

PRESIDING COMMISSIONER MOORE: We've arranged for an escort for you out of the building to ensure your safety.

[Laughter]

MS. WALTHER: We thought about this, and we really felt that we should be up front right now about our views.

PRESIDING COMMISSIONER MOORE: Better now than later. No, I

appreciate that.

And let me just say, because you have raised a good point, and that is we used the \$540 million as an indicator. Hopefully any system that we have works proportionately.

At some point the amounts may drop so low per Steve's comments earlier that they don't work. We'll have to think about that. It's a good point. But whether it's 465 or 540, right now we don't have any money at all, period. So this is as if the allocation, the surrogate for the eventual allocation were in place. We had to use some sort of marker.

So you raise a good point. We don't have any of that money right now. And should it be slow in coming in, should it come in in different proportions, we might have to revisit this. But right now we had to have a start point.

MS. WALTHER: Right, we understand. We just think that ultimately when you commit to an individual developer, the individual developer should be able to go to the bank and say there is this money sitting over here in this protected account.

PRESIDING COMMISSIONER MOORE: Well, right. And at the point where we've used the financing tools, we would have to have the money in hand to be able to write down a loan or to be able to act as a guarantor for that. We understand that. Which means that some of these things may not, in fact, physically happen until year three, year four, or even year five on a residual from previous years in the program. We understand that.

Thank you.

MS. WALTHER: Thank you.

PRESIDING COMMISSIONER MOORE: Let me go to Don Aitken.

DR. AITKEN: Commissioners, I'm Donald Aitken. I'm Senior Staff Scientist with the Union of Concerned Scientists.

But I just have to clarify, Robin, I didn't quite get it. Were you in favor or opposed to the -- never mind, never mind.

I think everybody should be up, out front in these proceedings, and I'm pleased when people declare that they are.

I want to make brief remarks just in three areas. And I have submitted them already in writing, so you don't have to wait until the 22nd, regarding the categorization of emerging technologies and a little bit about customer rebates and a little bit about the hybrid definition.

I think it's been very interesting for me to listen to the discussion on emerging here. It's really being totally misunderstood. I need to take us back to before Christmas. And before Christmas at the hearings we were talking about wind and geothermal and biomass and solar. And we were talking about balancing the payments as much as possible to those different technologies in view of their status as developing technologies and commercialization and so on.

What's happened they now been categorized by the Staff. And I joined with everyone else in commending the Staff to extraordinary difficult tight-rope balancing act here, but we're still dealing with those four technologies. But solar is now buried in a couple of areas. It's buried somewhat in existing and the rest of it which is dominated by PVs and emerging.

What's really happening is people are taking on emerging by saying, oh, no, no, emerging means it's not really going to happen, we shouldn't put a lot of money in it, let's put the money into what we've got; it's cutting out solar. And I think we need to step back and remove the word "emerging" for awhile and keep in mind how much of a balance we want of those four technologies.

And then if the principal technology in solar that really is commercializing and really does appear to be able to meet the goals of AB 1890 to reach real market levels as a result of the expenditure of AB 1890 funds, the fact that it's in what you call "emerging" should not be a strike against it.

I really want to, really want to keep that balance out.

Now, in doing that I, in preparing the comments, I stepped back and tried to put on a hat of an investor. And that's led to an apparent somewhat change even in the position that we may have had before that we have always supported the full payments and the full recommendation of the PV industry. They have a very very well thought out commercialization plan.

But previously I did not support the commitment of the full AB 1890

funds to that because I was confident, as I still am, that PV was extremely popular with people and very popular with munis and very popular for residential applications and very visible in all these things; and they're going to be voluntary opportunities, voluntary funds, green pricing, the munis coming in, and so it's going to bring additional money into PV so let's just anticipate that.

You can't hang an investment on that. And I realize more and more that you can't quite make that as a policy.

And what I've done here is I've come out in favor of the full funding of the 96 million proposed by the PV. But I have reiterated my full confidence that you were not going to end up having to pay that. That after you've been going along for a couple of years that the original allocation that we are supporting, of around 18 percent or so of renewable for solar, may indeed come to pass out of AB 1890.

It's just at the beginning one has to make a commitment for a program that will carry through for the four years. It has to be multi year. You can't tell an investor I'm going to invest, I'm going to support some of it from the AB 1890 and kind of hope that the rest is going to come in.

And so I haven't really fundamentally changed our position except wanted to give some investor security here. We absolutely do support removing the 60 percent limit. Any limit arbitrarily placed comes back to bite you.

You can have a policy internally that you want to keep balancing the expenditure of AB 1890 funds in the interest of diversity of whether it's emerging or any of the renewables, but you have to keep revisiting that policy in terms of where you are.

And if you've previously simply set a limit and said, oh oh, we're hitting the limit, and, gosh, we're going gang busters, and we'd like to give more money to something, it just doesn't serve any useful purpose.

On the customer rebates, I've urged a real caution on that. And I was especially intrigued with the presentation we had just a little while ago that a major amount of green, access to the green market might be made with really minimal impact, a minimal requirement of AB 1890.

I've been disturbed by the people who are approaching customer rebate

recommendations as though that's going to be the great panacea. And the fact is it's the great risk and it's the great unknown.

I'm the first one to say that I do believe there's enormous public support out there. Union of Concerned Scientists has participated in some of these polls and done them ourselves. The public support is out there, and the potential for funding through public avenues is out there, but it's going to have to be approached very cautiously, very carefully, the way has to be paved very very carefully.

I don't like the idea of spending a very high cost per kilowatt hour as a rebate and as an incentive to a marketer in order to build the market while we could be buying more kilowatt hours, investing that money otherwise. And so I'm not comfortable, even with the amount that's allocated in here for the customer rebate program, and I recommend a serious consideration of shifting at least earlier on to the program approaching the customer rebate much more cautiously.

If it turns out after two years it's going extremely well, fine. That can be revisited. But I think what we just heard with Bill Julian is you may not have to revisit it. Because the main part of that customer program may be coming in without significant rebate support. So I just wouldn't make that big commitment in advance.

And so what does that do? That frees up some of the customer rebate funds and for reallocation to help out some of the other industries that have been concerned.

My final comments are just on the hybrid area, which I've sort of beaten to death, but I'm pleased to see it come back here because this is the only thing that I was truly garbled in the Staff proposal here. And the Staff basically said hands off on the idea of dealing with the issue of how we handled renewables, or projects, excuse me, that have more than 25 percent nonrenewable generation.

And then if you go to your page 30 and your definition of new renewables, there you are, they handle it. It's done. It's precisely the proposal that we put forth before you in December. And it simply says that there are three criteria for defining new renewables, and one of them is simply that the AB 1890 funds will

only go to that renewable portion of any project. And that's it. That's done. That's all you have to say.

But what happens is you have to, then there is reference to the 25 percent limit in the other definitions, which I proposed putting in balance, taking it out of the general definition. The general definition of renewables should not have anything to do with 25 percent. It's just a renewable. You're trying to define a renewable.

Then you go into the definition of existing renewables. And, fine, I propose we grandfather in the 25 percent limit. We grandfather in everything we've got.

You go to new renewables. I propose you adopt the wording that you've put in there, and we have indeed the flexibility that everyone is proposing.

And the importance of this, finally, just to wrap up, is back to comments that I've made and others have made the market should be allowed to determine the economics of any particular project. If we want to build 30 megawatts of renewables, and it turns out to be really economic because it's 100-megawatt project and it can truly compete as a 100-megawatt project or 70 megawatts of natural gas, great, because we're getting that 30 megawatts of thermal. And there just shouldn't be any rules that impede that.

And I think just cleaning up the definitions. Starting with the definition that's already been proposed by your Staff does the job.

So those are really only the comments I wish to make at this point. I would be glad to answer any questions.

PRESIDING COMMISSIONER MOORE: Thank, Dr. Aitken.

MR. MASRI: I would like to make a clarifying point, please.

PRESIDING COMMISSIONER MOORE: Marwan.

MR. MASRI: Sorry to disappoint you, Don, but I think what we meant to do is what we said upfront in the report. That the definition of, including more than 25 percent fossil in the definition of renewable, we thought better left to legislative guidance. Once we reached that decision, we did not clean up the definition to reflect that at the end.

So the errata that we made available today does that. In fact we don't include that in our definition, our position right now, until we get legislative guidance on whether this is a proper forum to do it or not.

DR. AITKEN: Okay. I may have to submit an errata to my own written statements then. I'm sorry I haven't seen that.

But I still believe that the definition that you offer for new renewables solves it. And you simply remove the 25 percent references otherwise, and I think it becomes a rather easy to handle issue or rather easy proposal to the Legislature.

Okay? Thank you very much.

PRESIDING COMMISSIONER MOORE: Thank you, Dr. Aitken. Appreciate it.

Peter Miller and Christo Artusio from EDF and Sierra Club and NRDC.

MR. MILLER: Thank you, Commissioner, for the opportunity to submit our comments here today. We'll try and be brief.

And in the interest of that, I want to say that generally we feel that the Staff draft is an excellent effort. And I want to emphasize that remark because the rest of our comments are going to talk about areas in which we think modifications and changes should be made, and that allocation of time does not at all reflect our general impression of the report which we think is quite good.

So to jump right in we strongly support the idea of what's been called a production incentive rollover, and what we called a variable production incentive in our comments, that's been described by a number of commentators today. We believe that this mechanism will be very useful in providing additional assurances to producers that the minimum level of support will be available while ensuring that the funds will be used as efficiently as possible.

We, and not wanting to duplicate what other people have said, I want to just highlight two issues that I think this inclusion of this mechanism raises. The first is that we are arguing that, we're proposing that the allocation to existing producers should be raised to 45 percent in connection with the adoption of this mechanism.

The higher allocation is counterbalanced by the possibility of a

considerably lower allocation if SRAC prices are high. And in fact I think even under the industry proposal whereby you start with an allocation closer to 60 percent, they could end up at an allocation of less than 40 percent. Considerably less than 40 percent if SRAC prices are high.

And so I think that that's a balance that is appropriate to strike, and one that allows us, I think, to justify in our minds a higher level of support for the existing producers.

We also support the recommendation made by AWEA earlier today that this type of approach could profitably be incorporated in the repower accounts as well, although with changes and modifications, particularly in regard to the target price.

The second point I want to address is with regard to emerging resources. The Staff proposal, as has been mentioned, includes an allocation of 20 percent of the total funds for emerging resources. We, the environmental community, recognize it's a tremendous value of investment in emerging resources, and so it's not without some difficulty that we have recommended that that allocation be decreased to 15 percent in our comments today.

We do agree with other commentators that as part of this shift, this 60 percent cap on any particular technology be removed.

Finally we note that the 15 percent that we're recommending be allocated to emerging technologies is a minimum, and it will be supplemented, in our minds, by funds from municipal utilities, by funds from voluntary contributions from ratepayers, and by funds that are made available through the production incentive rollover.

And so that while 15 percent may not be as much as the emerging industries would hope for, we think that considerably more money will eventually be made available through these other means.

I do want to, I guess the next point I want to make is I want to offer my support for your allusion to Solomon's problem of allocating the baby between the two competing mothers. I think we can safely refer to one of the mothers as the existing mother and the other as the new mother. In that case it wasn't originally

referred to that way, but it makes sense.

But I think that the dodge that Solomon is credited with of trying to smoke out the right mother by proposing to cut the baby in half wasn't the real genius. I mean anybody could have thought of that. The real genius of his proposal was that it was a clear, an efficient and timely resolution of the problem. It didn't require extensive application processes, there wasn't testimony required or multi-year proceedings, there wasn't a case by case review. He proposed a solution, and he implemented it, and it worked.

The point I'm trying to make here is that there is a difference between flexibility and uncertainty.

PRESIDING COMMISSIONER MOORE: You want us to adopt this today and get on with it.

[Laughter]

MR. MILLER: Yes, that's very very succinctly put. Flexibility is good, and we think that the production incentive rollover provides flexibility. And that's good. We think that the market allocation mechanisms that we'd like to see incorporated in the proposal provide flexibility. And that's good.

Uncertainty is bad. To put not too fine a point on it. Case by case review without crystal clear guidelines of how that review is going to be done create uncertainty. References to unspecified potential future changes to allocations or adjustment mechanisms haven't been identified create uncertainty. And we would argue that they should be viewed with extreme caution.

The final point that I want to make, and I wanted this to part from established regulatory norms at this point and with your indulgence, instead of offering testimony to the Commission, I would like to offer testimony to the audience.

My testimony to the audience is best summarized by paraphrasing the words of Mick Jagger. As you all will no doubt recall --

PRESIDING COMMISSIONER MOORE: Always a favorite here.

MR. MILLER: Yes.

[Laughter]

MR. MILLER: I knew he would be popular.

PRESIDING COMMISSIONER MOORE: Well done. Well done.

MR. MILLER: As you will all no doubt recall he said, “You can’t always get what you want, but you can get what you need.” And I would urge you to accept this dictum in this case. And to rather than focusing on what you want to instead focus on what it is that you need.

And I would submit that we can find a way to ensure that we can all get what we need, although not much more than that, from this process. And by this process, I’m referring to the Commission’s process that we’re engaged in today.

And if we do so, we will make an enormous contribution towards sustaining and enlarging California’s reputation as the heart and the first home of the renewable industry which is expanding worldwide.

I further caution that if we do not do that, and if we continue to squabble over this funding, that we will not have an effective \$540 million to spend, we will not effectively have \$460 million to spend, but we will have far less. And the consequences will be dire.

And with that, I wanted to pass it on to my two colleagues here who have comments on other issues.

PRESIDING COMMISSIONER MOORE: Gentlemen.

MR. ARTUSIO: Christo Artusio, Environmental Defense Fund. I wish to voice one concern in particular.

The Staff draft proposal generally complies with the legislative intent of AB 1890. However, the legislator emphasized the importance of using market base mechanisms to distribute the available funds. And, unfortunately, EDF does not find anything market based about the distribute mechanisms proposed in the Staff draft. The proposed mechanisms are inefficient, too uncertain and counter to the proposals of many of the participants in these hearings.

We are concerned that the lack of a competitive market mechanism will hinder the success of the proposal with the legislature and reduce the ultimate effectiveness of the funds provided by AB 1890.

That’s all I have to say.

PRESIDING COMMISSIONER MOORE: Are you proposing to comment in any kind of detail on this in writing about a market mechanism that would work?

I understand your earlier comments about the market mechanism that you preferred. Now we've, or at least Staff at this point, have digressed from that, created something that mimics let's say another approach. Are you prepared to offer fixes for that? Market based fixes that would help this proposal?

MR. ARTUSIO: Yeah, we would be absolutely interested in speaking more sensibly with Staff about where we can go from here.

PRESIDING COMMISSIONER MOORE: Good. I appreciate seeing those.

COMMISSIONER SHARPLESS: If I could just add on to what Michal was saying there are many areas in the Staff report that ask for comment about that very thing, distribution mechanisms. And I'm intrigued by the fact that so many people have already assumed what the details of those distribution mechanisms are without them being spelled out in the report.

So I, like Michal, would like to hear how you would do it. Because I don't think that the Staff report has really put a lot of detail in on those mechanisms.

PRESIDING COMMISSIONER MOORE: We'll look forward to those. We really will.

MR. ARTUSIO: Absolutely.

PRESIDING COMMISSIONER MOORE: Yes, sir.

MR. FERGUSON: I also have a few comments.

PRESIDING COMMISSIONER MOORE: You'll have to identify yourself for the tape.

MR. FERGUSON: Oh, I'm sorry. Rich Ferguson, Energy Chairman of the Sierra Club.

Just some reactions to comments that we've heard today. I'm reminded of a colleague in the private sector who admitted that competition is just something you put up with while you're trying to get a monopoly. And it sounds

like in many ways that that's what's happening here. And I think the way the Staff report was trying to be receptive to the industries' desires maybe, you know, fell into that trap of creating little monopolies.

In the new world who's going to decide what gets built and doesn't get built is the customers. And it's the power they want to buy and where they want this to come from that's going to determine what gets built.

And somehow to have the new category divided into one category that the wind people will think that they're going to get, and another category the geothermal people think they're going to get, and another category where the solar guys think they're going to get the money seems to me running counter to the whole idea that this should be market based and not have this money, you know, divvy up by technology.

I don't have a proposal except to say, you know, at least for the non-emerging technologies that, you know, hopefully will survive in the new world, to lump all those mechanisms into one and to devise some competitive allocation mechanism perhaps along the lines that EDF has proposed, to my mind that would be much more market based and, you know, follow the market into the new world more than we are doing now.

My other concern is whether this meets the 40/40/20 dictum of AB 1890. As a potential player in the green market I have been approached by many suppliers or potential suppliers, and yesterday's news about the ENRON NCPA deal reenforces this point that most of what I am being offered to buy now is from existing resources. Only about eight megawatts has been offered in a new project so far.

So I do not know then if the customer incentives are going to use to build the green market we are going to have to buy whatever it is that we are offered, and if that's existing, I wonder whether or not the customer incentive program will be counted as new money. I worry about that.

I think the issue about whether repowers with projects remaining under QF contracts are going to be counted as new is also controversial. And I bring this up because in the end we might devise all this stuff and we won't meet the

40/40/20 dictum, much less, you know, where the money should be going.

So they're just some comments based on some of the other comments today that I thought I would share.

Thank you.

PRESIDING COMMISSIONER MOORE: Okay. Well, we appreciate those.

And, of course, you understand we're not working with a uniform set of requirements on us. The bill is requiring us to do, at least language wise, requiring us to do something different for existing technologies than it is requiring us to think about or to invent for new and emerging technologies.

So I'm sensitive to your last set of comments where we might be unduly emphasizing a non-market base solution for existing, right? So what else is new.

MR. FERGUSON: No, I was more concerned about the new money. I understand the problem with existing.

PRESIDING COMMISSIONER MOORE: Right, but we're constrained by the bill.

In other words, so we're trying to meet the letter of the law while still providing the kind of incentives that it will take to bring up, hopefully, the customers that you're talking about, supplement the eight megawatts you're saying is out there in new under the broad umbrella that we've called the competitive arena.

So we haven't outlined the market yet. Christo also was talking about, you know, market based mechanisms. All we've done is to really supply kind of an umbrella phrase for that so far. So if by failing to put in the detail we're guilty of not defining a market, well, we're not quite there yet. But I hope that we do stimulate what you're talking about.

Jan, you have a question?

COMMISSIONER SHARPLESS: Yes.

I just want to ask, Mr. Ferguson, are you part of the group that is supporting the concept of a production rollover proposal, or are you separate from

that group? I wasn't quite clear from what you were saying.

MR. FERGUSON: The target price where the incentive is the difference between some target price and the SRAC?

COMMISSIONER SHARPLESS: That's what I understand the proposal is.

MR. FERGUSON: Correct. For the existing, yes.

PRESIDING COMMISSIONER MOORE: You are supporting for existing?

MR. FERGUSON: Yes.

PRESIDING COMMISSIONER MOORE: Okay.

COMMISSIONER SHARPLESS: Well, I'm not sure how that comports with the rest of what you said.

MR. FERGUSON: No, I was really --

COMMISSIONER SHARPLESS: I'm really confused now.

MR. FERGUSON: I'm sorry. My remarks really had to do with the financing, or the new market, rather than the existing. I understand the constraints you're under for the existing.

But in how you go about building the new market, you know, devising or trying to allocate so much money for a mechanism that it's going to suit one technology, so much money for another mechanism that suits another technology and so on, I think doesn't effectively allow these technologies to compete against each other. You know, sort of trying to predetermine, you know, what the customers want. And I just don't think you should be headed down that path.

COMMISSIONER SHARPLESS: But you would support merging those two items under new allowing for all of the possibilities in making it a bidding process?

MR. FERGUSON: Correct.

COMMISSIONER SHARPLESS: Okay.

PRESIDING COMMISSIONER MOORE: Thank you. Thank you, gentlemen.

Jim Birk.

MR. BIRK: Good afternoon. I'm Jim Birk. I'm Manager of the Renewables and Hydro business area at the Electric Power Research Institute.

Our overall assessment of the proposal is, Marwan, congratulations on an excellent job. There's an excellent balance as far as the allocation is concerned. The open bidding is a very wise choice for emerging and new technologies, and the customer in emerging technology sectors are very important, very critical to the program.

I think there's been a lot of attacks on the consumer in the emerging accounts. It's not surprising to see those attacks because folks want to dip into that well, but I think we ought to take a look at this program from a little more broad perspective. And that is stepping back and looking where renewables are going to be in the year to 2010, maybe 2015. And where are renewables going to be at that time?

We're going to see them where customers are anxious to purchase renewables. Not only because it's environmentally friendly, but because the economics is right.

We're going to see a very sizeable renewable generation mix at that time. Probably up to the resource limit of many of the renewable technologies.

We're going to see a lot of new technologies that are just now in researchers' minds. We're going to see, for example, megawatt scale turbines, wind turbines.

We're going to see 20 percent thin film photovoltaics. We're going to see biomass gasification. We may even see hot dry rock geothermal.

That's what we're going to see in the year 2010. And what's important is what we're going to do now to make that happen. And how can we accelerate that vision. Rebuilding or reproducing technologies past is certainly not one of the ways to do that.

Wish it were briefly discussed three areas where the Commission could build upon national programs we are pursuing on green pricing, customer education and technology characterization. There's two levels of cooperation that could be established between EPRI and the Commission. One is we could drop off the results of some of this work at your door or we could partner to expand the

scope and tailor them for California's situation.

First of all let's take a look at green pricing. The Staff report is admittedly silent on how to use voluntary contributions. It is also silent on how to encourage customer contributions or green pricing. Everyone in this room and in the state can benefit by an expanded base of customer contributions.

We at EPRI are pursuing case studies right now, marketing guidelines, training sessions, experience assessments and workshops to help our members expand their green pricing voluntary programs. We invite the Commission to join us in these programs to build a sustainable revenue base for renewables in California.

Customer education materials. Whether one wishes to encourage voluntary payments for renewable technologies, purchase of renewable technologies, or purchases of green electricity, customer education is key, and the Staff certainly recognizes that in the proposal put before you now.

We are planning on developing such materials. Invite the Commission to join us in doing that. Many of our members are asking for this to expand their green pricing programs, and it would be good to achieve consistency of information and efficient use of resources.

Finally with regard to emerging technologies, as you are aware selection of emerging technologies for deployment is not simply a matter of determining which technologies are closest to cost effectiveness today. Selection criteria should also consider what gains can be achieved by technology deployment. What is the technical risk? And what are the prospects for a sustained commercial success?

EPRI and DOE have launched a joint program this year to address these and related questions. EPRI would welcome CEC involvement in and support of a similar program that focuses on California and builds on the joint DOE EPRI effort.

Thank you for the opportunity to provide these remarks.

PRESIDING COMMISSIONER MOORE: Thank you. And I think your offer will be taken very very seriously by us and our colleagues. Thank you.

MR. BIRK: Thank you.

PRESIDING COMMISSIONER MOORE: Jody.

MS. LONDON: Good afternoon. I'm Jody London with Working Assets Green Power.

There's a lot that I could talk about, but I'll try to keep it pretty short. I want to start by saying that you guys had a really hard job. I agree with everybody there.

As you know, we support it, we put forward a proposal in conjunction with Foresight Energy that suggested that 100 percent of the available funding should go to customer incentives. And we still think that's the way to go, but we understand that you're dealing with a lot of different issues here, and we respect the amount that you've come up with. We're not going to ask you for more, but we don't think you should go any lower. And we would say that if more becomes available, let's put it into customer incentives.

I really think that residential and small business customers are going to be the future of this renewables market. And I want to talk a little more about that.

There have been some suggestions today that the money that you've made available to the AB 1890 process should be given not only to the small customers out there, but that it should also go to larger customers. And let me tell you that from our experiences so far selling green power in retail markets in New England, it's small customers who want green power.

I've put into the record today an article from **The Boston Globe** that describes some recent results from the pilot program that Massachusetts Electric is conducting right now. We're participating in that pilot, and we're thrilled to tell everyone in this room that 30 percent of the residential customers in Massachusetts who are eligible to participate chose green power. I think this is tremendous news, and we should all be ecstatic about it.

The business customers didn't go for it at all. Business customers are always going to price shop, and it's small customers who have the opportunities to make decisions about socially responsible purchasing.

I want to put in a caveat, though, about Massachusetts. Even in Massachusetts where there's very high participation, the price that every pilot

participant is paying is still lower than what they would pay if they stayed with the incumbent utility during the pilot. So even the green power is priced below market. And that we're not going to have that luxury when competition starts in California in eleven and a half months.

So I think that's a really important thing to keep in mind because, you know, everybody likes to switch when it's really easy. I don't know that we'll necessarily see 30 percent participation, but I think we'll probably see 20 percent participation among small customer classes.

And I want to talk a little more about participation rates. Working Assets is very confident in our ability to bring customers to the market.

We frequently survey our customers about everything that we're doing and lots of new products that we're exploring, and our survey this past fall included green power. We had 6,000 customers respond to our survey. Nationally 98 percent of those customers said they want to purchase renewable energy when it's available from us. In California it went up to 99 percent.

I can't think of anything more encouraging. You know, that's great news to us.

Going back to Massachusetts for a minute, a lot of the customers that we signed up in Massachusetts were already Working Assets customers, but a lot of them are new customers.

I think there's real interest in the small customer community for this kind of project, for this kind of product rather. So it's important.

The other thing I want to point out is we're all very focused right now on what's happening with this little pot of money which as we all know is very small change compared to other items out there. But what's the market really going to look like? There's a lot of gearing up going on.

We've already heard some references to some alliances that have been made. There's other companies getting ready to offer this product who aren't even in the room. ENRON renewable, number one thing that I would point to.

I've been participating in a lot of activity at the PUC around what's the ISO going to need to have to conduct direct access transactions. And it is very

disappointing to me that I don't see more of the renewable producers in the room with us figuring out how you can participate in bilateral transactions. Because I just don't think at the end of four years that a long-term utility contract is going to be where the market lies.

And I want to go back to some activity at the PUC yesterday. They were talking about how do you unbundle costs appropriately to get new entrants in to serve direct access customers. And Commissioner Neeper was very pointed to most of the panelists, and he said: How many people do you think are going to participate in direct access? How many customers do you think you're going to have?

And almost without fail every potential new entrant sitting on the panel, there were probably six or seven of them, said if everything comes out the way it needs to and the economics are right to enter, we expect to be signing up customers in the hundreds of thousands starting, you know, in 11 months.

Now, not all of those people are going to be green producers, but some of them are going to try to take advantage of that. And I think that the more money you can make available for customer incentives, the more customers you're going to see demanding the product at the end of four years.

There's been some references today to the fact that we want to take this incentive money and put it into our pockets. And that's, guys, that's just not what it's about. What it's about is stranded costs and how, as a new market entrant, we can come in and pay 40 percent of the utilities' cost and still build a market.

You need to make margin somewhere, and that's what this incentive is about is providing a margin for green marketers to come in and build a renewable market. That's really what we want to do.

So I just offer that as more evidence to you that, you know, customers want green power. We're here to sell it to them. We're going to work to bring new resources into the mix. We're going to have to start somewhere, and we'd like to start with existing resources.

A lot of these are issues that get resolved outside of here. If there's anybody in the room who can tell me right now, any producer, that you're going to have a power price at the end of four years that's, you know, at or below power

exchange, see me afterwards, and I'll sign the contract today. But, you know, we're trying to build the market, make it competitive, bring you customers, and we have to find some ways to get there, and we think that small customer incentives are a great way to go.

Thanks.

PRESIDING COMMISSIONER MOORE: Thank you, Ms. London.

Eric Miller.

MR. E. MILLER: Thank you. Eric Miller with Foresight Energy.

Let me just try to not repeat what Jody said but try to continue on and primarily emphasize a few specific items. We also agree that the report represents a good basis from which to proceed, and we think that the allocation amounts and the allocation methods are workable.

Of course we believe, and Jody's given you a lot of data to back up why we believe that, you know, that in fact quite a larger commitment to this area would certainly be utilized. That that program wouldn't go unutilized if it were larger and would achieve even greater benefits. But we do believe as long as the allocation method is focused on small customers as you have proposed, that this is a workable way to begin to create a dynamic green power industry.

And we commend you for seeing that and appreciate it very much but would like to emphasize for that to be true that the small customer focus is absolutely necessary. Because the larger customers really what that, the concern is, and there may well be some very legitimate large customer, green customers, out there. We're certainly not saying there aren't any. But by and large what we expect to happen is that there will be a, it will really become just a way to get around the phase in rules, and you'll find the money simply sucked up very quickly for some short term transactions that won't actually build a sustainable market.

It's not that those things are undesirable transactions. It's just in an environment of scarce funds you can't afford to focus on anything but things that are going to be effective over the long term.

We also believe, although it took some time to come around to it, but we agree with the funding allocation mechanism. In the end we decided that a

certainty of process is more important than a certainty of outcome. That if the, as I understand it, that the funds would be allocated in equal quarterly installments through the transition period and that those funds would then be allocated to the available generation at a rate not exceeding one-and-a-half cents a kilowatt hour.

Assumption being if the funds, if there are funds available at any, if there's an excess of funds at any point, then they would roll forward such that if there was fewer customers than the maximum that could be taken into account in the program in the beginning that that would allow for a greater number at the end. And so that we could achieve that, an average number that you've contemplated in there through the whole program.

And we think that's a workable program. It does, we do expect the numbers to come down in later years, but we're hopeful that at that point CTC's going to be coming down, and we think we'll probably be okay.

I want to say there is some risk there for us. And in balancing those risks we decided that the benefits of the certainty of having a simple allocation system outweighed the risks of not knowing where the money is going to come from. So in the end we agree with your approach.

We think the certification mechanisms are fine as you've put them together. We think that they're quite workable.

And then we would also like to, we appreciate the recommendation, the comments in the report recommending contract restructurings in dealing with, as you said, the problem of lack of supply.

We see the report not really encouraging contracts to enter in any sort of direct funded, directly funded way, encouraging that. Obviously our mechanism, you know, we had proposed a more explicit commitment to that. That's not been adopted, but we certainly appreciate the comments of interest in trying to resolve this issue.

And we look forward to working with the Commission in other forums. Primarily I think probably the CPUC is where the forum will become active. And we're certainly going to be at putting forth some ideas there.

And I would also like to add I don't believe given the size of this

program that actually a lot of reliance on contract buyouts is necessary to get the supply. We think the supply is out there to implement, fully implement the program that you set out here and without assuming a lot of contract buyouts. So we don't see that as an, we don't believe, I wouldn't characterize your report as relying on contract buyouts to make things successful. I don't think that's necessary to get where we need to go.

And I think with that, I will stop. And if you have any questions, otherwise I appreciate the good work you've done.

PRESIDING COMMISSIONER MOORE: Commissioner Sharpless.

COMMISSIONER SHARPLESS: I just want to, we haven't had much comment today so I'm going to pick on you. On the two percent that was earmarked for marketing education.

MR. E. MILLER: Sure. I would say --

COMMISSIONER SHARPLESS: Do you have any comment?

MR. E. MILLER: I would say I don't have a strong view on it. I think we certainly welcome any additional public education support, and we certainly can't afford to do it all ourselves. So we certainly support those efforts and are glad to see additional help in funding wherever it can come from.

I think where we would have had concerns is if it rose to a level where you were educating consumers instead of giving them the opportunity to actually buy the project, buy the product. And I guess I see your report as not creating that conflict, you know, that number.

You know if you had swapped the two numbers, I would have a lot of concern that we would be telling people a lot of great things that they weren't in any position to take advantage of. And I don't think the report as it's written does that.

COMMISSIONER SHARPLESS: Thank you.

PRESIDING COMMISSIONER MOORE: Thank you, Eric. Appreciate it very much.

Ken Delfino.

MR. DELFINO: Ken Delfino, Department of Forestry and Fire Protection, and also representing the Fires Strategy Committee which is a group of

about 30 governmental organizations both at the federal, state, local level and private industries and environmental groups.

California Department of Forestry and Fire Protection would like to express its strong support for the solid biomass energy capacity for reasons other than electrical generation. The renewable resource from biomass is not only renewable, but it also provides some other public benefits which have not been addressed in the report and maybe should be.

Those are fire hazard reduction, reduction in catastrophic wild fire events, protection of life and property, improved air quality, improved forest health, wildlife benefits and improvement in water quality.

I think somewhere in the report that these other public benefits should be noted as one of the purposes of this whole process in providing for biomass energy.

Without biomass energy our only efficient method of dealing with excessive fuels build up is our vegetation management program that the Department of Forestry runs and the Forest Service has a similar program.

The Department of Forestry and Fire Protection is treated by prescribed burning approximately 550,000 acres in the last 12 years, or excuse me, the last 15 years. We average about 35,000 acres a year. We should be treating about 150,000 acres a year, but we cannot reach that limit both for fiscal reasons and for air quality reasons.

Air quality limits the amount of burning that we can do each year, and the more strict standards currently being considered will significantly decrease our ability to expand the prescribed fire program over the years.

The California Board of Forestry Fire Plan, which was adopted in 1996, institutes a major pre-fire initiative. Wild fire produces about 600,000 tons of air pollution annually from national forests and private lands in California. This initiative targets those lands for fire hazard reduction in order to bring down that catastrophic fire and that air pollution quantity.

Biomass is one of the key components or one of the key tools that we would like to have in the arsenal for treating that wild land fuel. Once it's removed,

when you've got it in the forest, you don't have many choices. You can either take it down as an aerial fuel and put it on the ground, which then encompasses its own fire hazard; you can remove it through harvesting if it's got a commercially viable product; you can burn it, which has its own pollution problems; or you can send it to a biomass energy plant.

By far the most rational way of doing that is to a biomass energy plant. So we want to encourage the Commission to maintain all the support possible for biomass energy for these other public benefits that are incurred.

I'd like to leave for the Staff a copy of the Board of Forestry 1996 Fire Plan which outlines all of the environmental benefits of reducing that fuel component in California's wild lands.

PRESIDING COMMISSIONER MOORE: Let me just ask you a question. Is it reasonable that your board would want to work with us on something like this in terms of modifying the THPs so that they would reflect either some intangible value from the removal of slash and other materials left on the ground? This could be a requirement.

In other words without some incentive or hammer, if you will, it's unlikely that, at least up where I live, GP and LP are going to think it's a real good idea to be trucking out the slash. They might think of that as something of a burden right now.

Could the harvest plans be modified to work in sync with something like this?

MR. DELFINO: Most of our efforts have not been particularly with the industrial owners, but with the small non-industrial private owners in that the board in the last couple of years through some legislation introduced by Byron Share produced a timber harvest plan process whereby individual property owners, if they had a dwelling on the property, could economically use a THP process which was very much streamlined over what is currently required for THPs.

And some of this material, of course, is commercial in the saw logs, but some of it also is either has to be disposed of or can go to a biomass plant.

We've got a very successful project in Shingle Town where the

individual lot owners annually clean up their lots and move the material out onto the street. It's picked up by a biomass operator, chipped and hauled to a biomass plant. It doesn't cost the landowners anything other than their own sweat equity, and it gets some biomass into a van at only handling costs to the producer.

So there are a number of ways that this can be done, and the board is certainly interested in any way of bringing down the fire hazard, both by market or non-market means, in order to bring down the fuel volumes that are in the woods now.

PRESIDING COMMISSIONER MOORE: Well, I don't think it's clairvoyance on my part to suggest that it's likely your board members are going to see this in the form of legislation coming down, or at least an attempt for legislation to coordinate tipping fees or slash cleanup, right of first refusal charges, that kind of thing, for the forestry industry to help make biomass more competitive. They're going to at least see proposals for that in the next year.

So appreciate your comments.

I think Commissioner Sharpless has a question.

COMMISSIONER SHARPLESS: Yes, just one question. Undoubtedly you're working with CAL EPA and the report that 1890 requires from them?

MR. DELFINO: Through the Resource Agency, yes.

COMMISSIONER SHARPLESS: Through the Resource Agency?

MR. DELFINO: Yes.

COMMISSIONER SHARPLESS: That's interesting. Oh, oh, I see. But you are inputting into that process which is under CAL EPA.

MR. DELFINO: Yes.

COMMISSIONER SHARPLESS: Okay.

MR. DELFINO: Through the agency.

COMMISSIONER SHARPLESS: And the idea there is to come up with recommendations on some revenue shifting on the fuel costs.

MR. DELFINO: Correct.

COMMISSIONER SHARPLESS: Okay. Great. Thank you.

PRESIDING COMMISSIONER MOORE: Thank you.

Mark Yance from NREL.

MR. YANCE: Good afternoon. My name is Mark Yance. I'm with the National Renewable Energy Laboratory in Golden, Colorado. I'm with the Biofuels Program.

I think that's pretty good timing that I'm following the last gentleman because I would like to talk about a technology that also uses agricultural waste, forest thinnings, and other biomass wastes. And that is biomass conversion to ethanol.

And what I'd like to talk about is how this technology can be integrated with a biomass power plant. And how the two fit together, and how this can, in fact, over the long term make biomass power in California competitive.

And what I'm talking about is co-locating biomass ethanol plant with right at the location of the biomass power plant. Co-locating a biomass ethanol or a bio-ethanol plant with an existing biomass plant could prevent the loss of the installed biomass power capacity in California.

A bio-ethanol plant requires significant quantities of process steam and electricity and a place to dispose of the lignin by-product produced when biomass is converted to ethanol.

A biomass power plant can provide these services to the bio-ethanol plant. Lignin from the bio-ethanol plant can be used to fire the biomass power plant, which in turn can supply steam and electricity to the bio-ethanol plant.

Approximately 40 percent of the capital costs for a green field bio-ethanol plant would be for the lignin boiler and turbine generator facility. These capital intensive facilities, if these capital intensive facilities already exist as they do in great numbers in California, it makes sense to locate the bio-ethanol plant in the immediate vicinity of the existing biomass power facilities.

The capital costs of the bio-ethanol plant is reduced substantially while operating costs are increased only slightly. Thus improving the overall profitability of the bio-ethanol facility while at the same time keeping the biomass power plant operation profitable.

California has abundant biomass resources, much which is currently

under utilized. Much of the under utilized biomass is open field burns or landfill. Bio-ethanol production could utilize California's biomass resources and at the same time solve the crisis faced by the biomass power industry.

The ethanol produced would also provide a local source of an oxygenate for the huge reformulated gasoline market in the state.

In my written submission I've got a process description and a simple block flow diagram that shows how bio-ethanol facility integrates with a biomass power plant, but I won't go into the details. I will just briefly describe a proposed installation of an ethanol plant with a 25-megawatt biomass power plant to give you an idea of the amount of biomass involved in ethanol produced.

Such a facility would consume 1200 bone dry tons per day of biomass or about 400,000 bone dry tons per year and produce about 30 million gallons per year of ethanol. The ethanol facility would produce about 30,000 pounds per hour of lignin which would be enough to provide all the fuel for a 25-megawatt biomass power plant.

The ethanol plant would in return consume approximately 16 megawatts of the output of the biomass plant and 200,000 pounds per hour of steam.

My written submission also lists the estimated income and expenses for the ethanol plant. But basically the internal rate of return for the ethanol plant investment is estimated to be 13 percent with a hundred percent equity financing and at a capital cost of \$56 million.

That analysis assumes ethanol is sold at \$1.20 per gallon, which is current selling price. In fact, selling for a little bit more in California here. And feed stock costs of \$20 per dry ton. At zero fee stock costs for the bio-ethanol plant the rate of return would increase to 23 percent. Also with significant debt financing, the rate of return could be increased up above 20 percent.

For the State of California I think the best case scenario would be to assume that bio-ethanol plants are co-located with all existing biomass power plants in the state. The bio-ethanol plants would be sized to produce all the fuel required by the biomass power plants. This fuel would be the clean burning lignin by-products from the bio-ethanol conversion process.

If we assume 1,000 megawatts of biomass power in California, then 1.2 billion gallons per year of ethanol production would result. Sixteen million bone dry tons of biomass would be required to produce the 1.2 billion gallons of ethanol, and it would also support the 1,000 megawatts of biomass power capacity.

Perhaps as many as 3,000 direct jobs would be created by the new biomass power plants, and another 3,000 direct jobs could be expected due to increased biomass harvesting and transportation needs. Using a multiplier four results in a total of 24,000 new jobs.

Capital investment for the new bio-ethanol plants would be in the range of 2 to \$3 billion.

Co-locating bio-ethanol plants with existing biomass power plants is a win/win proposition. The biomass power plant provides an environmentally acceptable means of disposing of the lignin by-product produced by the bio-ethanol plant. The biomass power plant provides the power and steam required for the bio-ethanol conversion process.

The bio-ethanol plant owner avoids capital expenditures for the boiler, turbine, generator and switch gear that would be needed in the absence of a biomass power plant. Because of this reduction in capital costs, the biomass power plant becomes a valuable asset to the bio-ethanol plant even with the relatively high price for power paid by the bio-ethanol plant.

My earlier economic analysis I fail to mention that the ethanol facility would pay for that 16 megawatts at six cents per kilowatt hour, which should be sufficient to keep the biomass plant profitable.

I feel that this technology could fit very well into the emerging technologies account, but I feel the eligibility criteria may be too restrictive. And I would urge the Commission and Staff to take a look at those criteria and see if this type of project could fit into the emerging technologies account.

Specifically, I would question the requirement for at least one vendor offering equipment for sale in California. That may or may not be a problem for this technology. We haven't got to that point to actually go out and look for vendors. But some of the equipment certainly could be manufactured and purchased here in

California.

The others, the minimum one year of available performance data for full scale facility, I would just ask that you review that and see if that's really necessary for an emerging technology.

Also new electricity generation generating process not an incremental improvement to existing technology. What I've described would not necessarily be a new electricity generating process, but it would make the biomass power plant viable and keep them in operation, and while at the same time almost tripling the amount of biomass used and producing a very valuable product in the ethanol which could be used in the transportation fuels market.

I believe bio-ethanol link with biomass power will be competitive in the near future. However, the first bio-ethanol plant will be a high risk investment. The first bio-ethanol biomass power plant will require financial assistance in the form of loan guarantees, interest rate buydowns or capital costs buydowns to reduce the risk to an acceptable level.

Thank you.

PRESIDING COMMISSIONER MOORE: Thank you very much.

All right. With that, we're going to take a five-minute break and return. Mr. Lombard will be the first one on when we come back.

We'll take five minutes to stretch our legs and come back.

[Recess]

PRESIDING COMMISSIONER MOORE: Please identify yourself for our scribe.

MR. LOMBARD: Yes. My name is Charles Lombard with Waste Energy Integrated Systems, which is being developed to build a biomass ethanol industry in California.

My goal is to leverage off of the existing biomass power technology very much in the spirit described by Mark Yance previously. And I will remark that WEIS is working cooperatively with NREL, the University of California and the California Energy Commission to do pre-engineering for the technology to build a first demonstration plant.

Our scenario for a 600-ton a day plant, which is 200K tons a year of organic biomass, is about half of the plant described previously by Mark.

I'll also say that his projections on the products of the plants, its energy usage and such things are much in accord with my own that were independently arrived at. And that gives us great confidence that the technology is in hand.

Our scenario is to build our first demonstration plant in two years spending calendar 1997 in pre-engineering and engineering and '98 in building the first plant. We are looking at several possibilities on either urban agricultural or forest waste, and all of those are very viable opportunities in the state. Each of them amounting to something like 10 million tons a year.

The prospect for 20 million tons is to multiply by an order of magnitude the present ethanol utilization in California and thereby to provide needed alternative renewable transportation fuel for the state. We talk about an alternative fuels industry, but in fact there is no alternative fuels being produced. We are importing almost all of 150 million gallons a year from the Midwest on expensive corn.

The prospect of an industry in California is like one and half billion gallons, which is equivalent to the entire present ethanol capacity of the U.S., and it is a half of the current ethanol capacity of Brazil. So we're looking at building in order the next decade here in California a new medium biotechnology industry amounting to a couple billion dollars a year and myriad new quality jobs.

The benefits to the environment are many and involve principally reducing the use of petroleum by 10 percent, and thereby improving both air and water quality. We also will make a contribution to stabilizing the carbon cycle. That's very important.

Fundamentally I think that the benefit of what we're proposing is to modernize the present biomass power industry and to give a broader definition to waste to energy. And it's very important that the whole regulatory framework of the state be reevaluated in terms of the value of wasted energy. We will add value five times over the value of boiler fuel in our integrated plants.

And that has a profound economic implication that I think means that

such things as attempting, and this is a matter of debate how biomass ethanol should be interpreted in the recycling legislation AB 939, but surely to accord something as valuable as this potential industry only a 10 percent diversion credit and thereby hamstringing its application to urban waste is, I think, foolish. And this is one of the things I'm trying to work with the Integrated Waste Board toward.

I think that is probably the substance of my comments here.

PRESIDING COMMISSIONER MOORE: We appreciate your remarks, sir. Thank you very much.

Mr. Sharp.

MR. SHARP: I'm Roy Sharp from Tulare, California. I'm a livestock producer. Also have four qualified facilities that go to Southern California Edison and PG&E on a very small scale.

I support the Staff report as it tries to meet the goals of AB 1890. I hope that the end result is growth of renewable energy, environmentally constructive energy, and above all a non-subsidized competitive clean energy for the consumer.

As each self-serving group tries to capture a part of the \$540 million, I'm concerned that the allocation will not be based on the criteria set forth in AB 1890 or the Staff policy goals.

I would request that anaerobic digestion gas or, digesture gas as you have mentioned before, be specifically mentioned as a renewable. I do not see it in the report. If it is not, I am afraid that we will not be allowed as digesture gas producers to compete for consideration in the AB 1890.

We are an existing technology today. We have four qualified facilities. We are a new technology.

Because we wish to expand and develop new commercialized facilities, we qualify probably in emerging as well as in new technologies. We don't qualify as repowering as some do. We don't qualify for off the cliff help because of the SO4 contracts. Our units are all self-sufficient, pay back in three to five years and can compete with almost all energy production.

We do not need consideration for finance -- I mean we do need consideration for financing and fair credits for the environmental benefits that we

produce. We fit all of the criteria for AB 1890. Please allow us to provide the potential of possibly 50 megawatts of renewable energy for California consumers in green power at a very competitive cost.

We can do this if we are not forced out of the loop. All we need is financing and a return based on kilowatt hours produced. We also advocate no tax credits and grants for development of these programs. We subscribe to a level field of competition based on economic feasibility.

Thank you.

PRESIDING COMMISSIONER MOORE: Thank you, Mr. Sharp.

Appreciate your trip

Milton Schultz.

MR. SCHULTZ: I'm Milton Schultz with Burney Forest Products. It's a biomass plant in Shasta County.

I have a couple of several little comments. One, I just want to mention a little bit on captive fuel supplies. On page 12 on the definition that it could be excluded from consideration of funds that captive fuel supplies that's location, location, location.

I hope it's not suggesting that a wind plant that is in the best location would be excluded, or a geothermal plant right over a high productive well would be excluded. But it doesn't seem that biomass should be designated on something there.

A comment on the cost shifting that plants, my understanding is that this mechanism was delegated to CAL EPA for after the year 2000 and to put a requirement that it be linked in this period, during the transition period I think is asking more than the authorization was given.

And further on this also, this is page 15 that comment, I'm also concerned where biomass plants, a linkage for plant improvements in order to be eligible for funds, would be required. That this is, we're trying to get a free marketplace, and the plants that are not efficient will drop out just on their own nature, and we don't need some rules or restrictions that will be placed on it.

But the thing I really would like to address a little bit I support and

endorse the industry consensus the proposal that comes. One of the things that seems to be there's a lacking in it, though, is that there is not the consumer incentive. And I think that there might be a solution that if we took a certain percentage out of the allocation and in the consumer incentive and distributed that by technology bands, you can make whatever percentage you want on that, but that percentage then, if consumers did choose to elect to buy green power, it would be credited to whatever technology band.

If we did this mechanism, it would protect or it would satisfy what the industry consensus has come up with in the technology band, plus it would give opportunity for people in the purchase of green power. And I don't understand totally the mechanism of how the funding works, but it seems that there could be some way in doing that that consumers could have their choice but yet these technology bands would still be protected.

I think there's a method that that can be done on the allocation, and I would appreciate some consideration and look at that mechanism.

PRESIDING COMMISSIONER MOORE: Thank you. Appreciate your comments.

David Konwinski.

MR. KONWINSKI: I'm Dave Konwinski with Energy 2000. Like to commend the Staff and the Commission on the job they did in the short period of time with everything that was put in front of them.

Just a couple quick comments. Definitions mainly with renewable fuels, what actually is construed as renewable fuel, such as anaerobic digester gas, methane. Maybe a little clarification so we know what does actually qualify as those fuels.

Also for acknowledging fuel cells and its capability, what they can do, and their fuel switching capabilities. Basically just want to really on that as far as the renewable fuel sources go.

PRESIDING COMMISSIONER MOORE: Thank you.

Herb Healy.

MR. HEALY: Thank you, Commissioner Moore, Commissioner

Sharpless, the Staff of the CEC.

My name is Herb Healy. I represent ONSI Corporation, a manufacturer of fuel cell power plants, and specifically the manufacture of the only commercially available stationary fuel cell power plant that's made anywhere in the world.

I want to thank you for the opportunity to just speak briefly this morning addressing, or this afternoon, I thought maybe it was going to be this morning when I wrote this, and to address the Staff about the report that it wrote.

I want to say unequivocally that we at ONSI believe that the Staff did a good job. So if that sounds like we're in favor of the report as written, you can certainly take that impression with you.

Just a quick aside, it strikes me that someone with a really good wit this late in the day could make a really good skit for something like Saturday Night Live based on all of the rather dissenting perspectives presented today. As I said, luckily I don't have that kind of wit so I'm not going to do that.

PRESIDING COMMISSIONER MOORE: It's playing right now in Washington D.C. -- Congress.

[Laughter]

MR. HEALY: Touche.

PRESIDING COMMISSIONER MOORE: On stage live.

MR. HEALY: Okay. Let me be brief and to the point.

First to the issue of funding for the emerging renewable technologies. As a manufacturer we recognize the role of public support for technology is to bridge the gap for that interim period between introduction of that technology, and by introduction I'm talking about that period I'll characterize as the advocate or manufacturer driven period, and a period at which that technology reaches competitive economic viability, which is certainly the market driven period.

We support the Staff report position of a separate emerging technology account, and we support the amount of at least 20 percent.

For us the issue is not one of protecting the technology, I'll kind of put back what Commissioner Sharpless made a point of earlier, protecting that technology against a cliff, so to speak, but rather providing the necessary bridge to

the gap. Which in the past for emerging technologies was typically provided by the utility industry, and which, in this competitive environment, as is the intent of AB 1890, will no longer be the case.

Second, to the specific recommendations of the Staff regarding fuel cells. One, we support the recommendation of the Staff that fuel cells be defined as a fuel switching technology for purposes of CTC exemption. And I would certainly love to see the appendix of the work that you did in reaching that conclusion.

Secondly, we support the recommendation that fuel cells be considered a renewable resource technology for applications utilizing non-fossil fuels. Albeit we recognize that this falls short of defining fuel cells as an emerging renewable technology.

Given the fact that there are various fuel cell technologies at various stages of development, we recognize the appropriateness of qualifying our technology on a project specific basis against a set of established criteria, which I will just get to and address in a moment. And if I'm not mistaken, that was in fact the intent of the Staff recommendation.

Let me just go back for one moment regarding my first point here about supporting the Staff recommendation that fuel cells be defined as a fuel switching technology. I made a mental note that up until the time that the three electric utilities or the IOUs presented today that in fact this was not a controversial subject. Obviously that was no longer the case.

So while I was not going to say anything to rock the boat, I think I must say a couple of things about the comments today.

A couple of the utilities did not indicate their reasons for taking the position they did regarding fuel cells, but at least one utility offered three comments about fuel cells. Not the least of which that are the fuel cells are not different than any other kilowatt generator. I believe that more or less was the phrase used.

I find that contrary, I believe, to the facts. Certainly if fuel cells were the same kind of generator as everything else, I don't think we would have spent 40 years developing that technology and only being where we are today. I also find it surprising that these same utilities spent many millions of dollars of ratepayer

money over the years developing fuel cell technology on the very basis that in fact it was a different technology.

Let me just go on now for a moment. The above, I think, raised two issues that are important to the fuel cell industry. One is the clarity and completeness of definitions regarding the criteria and what is meant or the criteria for what constitutes an emerging technology, and on what basis that technology would be funded.

And the clarity and completeness of the definition for what is meant by a renewable fuel. That is a non-fossil fuel. And I believe the Staff report presently uses those terms interchangeably.

I think that that should be clarified. And in particular I'd like to ensure or we would like to ensure that renewable fuel does in fact include anaerobic digester gas among others.

Secondly, another issue important for the fuel cell industry is the mechanism for applying and securing the public support.

Now regarding the first about clarity and completeness of definitions, I mentioned one being the meaning of renewable fuels. I also refer to your definition for criteria for emerging renewable technologies. And, in fact, in the Executive Summary I believe on page seven you mention that you define four criteria that a technology must meet to be emerging technology. Within that, the first of these deals with commercial availability, and specifically I would ask what is the intent of the requirement for a five-year warranty.

I say that not because we as a manufacturer do not offer a warranty on a project, but putting a specific warranty period in here as criteria, to us smacks of a specifically oriented technology.

Number one, we believe it is somewhat arbitrary.

Number two, and, in fact, I think the warranty certainly goes along with being a commercially available product by definition, in fact, of a commercially available product is one that is available at a fixed price with a fixed delivery date with a warranty.

But specifying that that must be a five-year warranty we believe is

arbitrary. It's really a question of risk management, and I think should not be defined as a single year item number.

I would also ask, resulting from that same page, that the Staff report identifies three, or at least refers to three additional criteria for determining whether or not an emerging technology would be funded, and I'm sure it is my ignorance, but I was not able to find later in the report in chapter five what those three criteria were. So if someone could help me out with that, I'd really appreciate it.

Now I mentioned the second issue being the mechanism for applying and securing public support. And I would just say this: We would support a mechanistic approach for securing the funds wherein the applicant for the most part is filling out an application on the dotted lines and are answering specific questions or answering specifics about the criteria rather than a requirement for a technology project-specific proposal.

I can tell you the latter often degenerates into a case of who's technical writer is the most eloquent and innovative in crafting the language, and I don't think leads to a real market driven approach.

Those are my comments. If you have any questions, I'd be happy to.

MR. MASRI: I can perhaps just show you where that --

MR. HEALY: Thank you. I'd appreciate that.

PRESIDING COMMISSIONER MOORE: Thank you, Mr. Healy.

All right. Please forgive me if I pronounce the next name, last name, incorrectly. George Mar, is it? Lafayette? You're on.

We had a contest up here and everyone lost. So perhaps you can tell our scribe, spell your last name for him.

MR. HAY: I'm George Hay, H-a-y, of Lafayette, California, and have grown up with hay is for horses is an expression that I've had to live with most of my life.

I'm with CAGT LLC of Lafayette, California. CAGT LLC manages the corroborative Advanced Gas Turbine Program that was started 1991 with the California Energy Commission as an approach to looking at green scenarios for replacing the 20,000 megawatts of older fossil units in California.

In commenting on the Staff report, the report recommends distributing the funds broadly amongst a lot of different boxes, almost predetermining the outcome that there will be lots and lots of small projects. We urge the Committee to preserve the flexibility on funding allocation to allow consideration of larger and cross cutting renewable initiatives with equal or greater public interest benefit of the smaller project opportunities based on CEC established evaluation and selection criteria.

Secondly, we also request that the Commission consider inclusion of renewable advanced gas hybrid systems that we believe would improve the long-term sustainability and advancement of all renewables including biomass, solar thermal, wind and geothermal renewable technologies and resources.

Lastly, we concur with earlier comments made that the 25 percent gas limit on the definition of renewable plants should be removed as a major impediment to sustainability of renewables in California.

Thank you.

COMMISSIONER SHARPLESS: Excuse me. I just didn't hear your last point. Could you repeat your last point for me.

MR. HAY: The 25 percent gas limit --

COMMISSIONER SHARPLESS: Oh, fossil fuel limit?

MR. HAY: Natural gas limit on, or fossil fuel limit on renewable plants could be a major constraint on the sustainability of the operating as well as new renewable plants. If that was redefined to a higher limit, I think we would see more renewables in California and a lot more of the plants that are existing continue operation economically.

COMMISSIONER SHARPLESS: Oh you're saying for existing as well as new?

MR. HAY: Existing as well as new.

PRESIDING COMMISSIONER MOORE: Thank you.

MR. HAY: Thank you.

PRESIDING COMMISSIONER MOORE: Kevin Williams.

MR. WILLIAMS: Good afternoon, Commissioners. My name is

Kevin Williams. I'm with Stanislaus County Department of Environmental Resources. I, too, would like to commend Staff on the draft report on renewable funding.

I'd like to give you a little bit of background on why I'm here today. The Stanislaus County Resource Recovery facility is an 800-ton per day waste to energy facility that provides benefits by converting refuse to 22 megawatts of electricity. Ratepayers of Stanislaus County will be negatively impacted due to energy revenue decreases in the avoided cost period of our IASO4 contract.

Unfortunately, the draft does not include waste energy technology at all as far as I could see. This oversight, I believe, is not consistent with AB 1890. I, therefore, have two recommendations. That number one that this renewable technology should be included in the final report to the Legislature; and secondly, allocation of funds to waste energy technology should be included in the final report to the Legislature. Technology funding allocations should be adjusted if necessary.

These recommendations are consistent with Assembly Bill 1890 goals for diversity and reliability while helping to preserve the benefits of this technology.

Thank you for allowing me to make these comments today, and I will provide these in writing.

PRESIDING COMMISSIONER MOORE: Appreciate it very much.
Thank you, sir.

MR. WILLIAMS: Okay, thank you.

PRESIDING COMMISSIONER MOORE: John Schaefer.

MR. SCHAEFER: Good afternoon. I'm John Schaefer, a consultant for Clean Power Works which may turn out to be the fourth green electricity provider in California.

I'd like to compliment the Staff on the excellent job that they've done in producing this report so promptly giving us something to address these issues with. The devil is in the details, and allocation of those costs is certainly one of them.

I confess I'm disturbed to see people whom I respect up here squabbling over how these monies are to be allocated, and there's been no rational mechanism

proposed by anyone for that allocation of money. It's all opinions and politics.

I do recall that the Commission requested earlier some rational mechanism by which these funds could be allocated. Maybe I can offer you one.

But first let me observe that renewable energy, renewable electricity in particular, has not been widely adopted throughout California, or anywhere else, because utilities haven't been able to pay enough money for it. This isn't because they are necessarily evil. It's because those are the rules that we set up for them years ago. And the difficulty, of course, is that the renewable electricity supplies haven't been available to the customers.

One of AB 1890's objectives is to establish a market that is available to the customers. And as a matter of fact that may not only be the best future for renewable energy, it may be the only future for renewable energy. The past 15 years or so in which I've been involved with solar and wind and some biomass and some geothermal have not been uplifting in terms of the success that these technologies have enjoyed.

I propose that some mechanism to allow this electricity to reach customers will provide a long-term growing market. We know that most customers want renewable electricity. As many as 75 percent in most surveys say they will pay more for renewable electricity. So we need to pay attention to the customers.

As a retailer I'm thinking about what customers want. They want the story to be simple. It's got to be a 30-second story. They want the renewable electricity to be supplied to them.

And successful green pricing programs, we find, have some characteristics. They have a credible supplier, the customer is offered something, he actually gets the electricity. Customers will not be pleased with the CTC when they're confronted with that.

So my proposal is the following: That we offer instead of carving up the 540, or however many million dollars there are, to a bunch of little boxes by year and by technology, let's use something simpler. The mechanism is for all of the support to go to renewable kilowatt hour credits that customers buy. For every

customer who buys a renewable kilowatt hour from whatever source, he receives a credit.

How much should the credit be? Well, we might start with the level of the CTC, whatever that is. If it's three cents, give him a three-cent credit. People will object. They'll say that's too much. Maybe it is. But the principle is that a uniform payment be provided to all customers who buy renewable electricity.

The amount of money that we have may not last the entire four years or it may last longer than the four years. Whatever it does, that period of time will run out when the money runs out, and then the market will have been established.

Now I'll have to put in a pitch for renewable energy aggregators or green power suppliers as I propose to be. They're going to need some help, and I suggest that educational and information programs be set at more than two percent. Perhaps five percent.

I would suggest additionally that energy production by net metered customers also be granted this renewable energy credit as long as it's separately metered. This will provide an incentive for rooftop PV systems and dish sterling systems which do, I believe, have a future in California even though right now they're not economic.

I support an idea that I've heard from several presenters on what sounds like a renewable energy power exchange. Let's call it an RPX. Something like that would make the marketing of all of this much easier. Otherwise the four of us, the four entities that will be doing this, are going to be out scrambling around looking for biomass plants and wind plants and hydro and this and that. Some of which we'll with the credits, some of which we'll have to sell without the credits.

I do believe that project developers will appreciate more the growth of a long-term market that this plan will provide, because real customers will be demanding the electricity, than they will the few mills per kilowatt hour that they'll get from the allocation process that we've discussed all day.

The advantages of such an approach, of course, are that it avoids these arbitrary choices, customers make the choices, and responsible companies who either are successful or not in providing their products to customers will be

accountable. The market will work. Let the customers choose what the renewable energy products are that they want. It's simple. Everybody can understand it. It's two or three cents per kilowatt hour. Or perhaps CTC forgiveness.

And if there are any questions, I'd be pleased to address them. I can think of one that somebody will have.

PRESIDING COMMISSIONER MOORE: You might have wanted to answer it during your remarks.

MR. SCHAEFER: I did.

[Laughter]

PRESIDING COMMISSIONER MOORE: Good. All I can say is we don't always get all the points, but if we don't, then it probably doesn't get in the report.

Mr. Larson.

MR. LARSON: Good afternoon, Commissioners.

George Larson. I'm here today representing USA Waste Services, Inc., but I'm also here addressing the Commission Committee on behalf of a coalition of a number of private companies, public agencies and organizations that support equitable treatment for renewable energy producers.

They include the California chapters of the Solid Waste Association of North America, the California Refuse Removal Council, the Los Angeles County Sanitation Districts, NorCal Waste Systems, Browning Ferris Industries and USA Waste of course. Collectively we represent over 100 landfills in California.

While today I'm submitting oral comments, we will submit written comments by the deadline and hopefully before.

I would like to join the multitude who complimented the Staff on the work they've done on this complex issue in the time frame allowed. The report provides an excellent summary of the issues and complexities in implementing the renewable provisions of the California landmark energy restructuring act.

The report accurately captures the recommendations of the stakeholders who have participated in the process and attempts to balance the many interests the participants have provided input concerning their issues.

However, we're concerned that the report overlooks the importance and benefits of landfill waste gas to energy projects in California and in the interest of maintaining a diverse energy generation market.

Electric power generated through landfill gas is one of our nation's cleanest sources of energy. In comparing the net environmental impact of landfill gas recovery at plants at landfills with other sources of energy, including oil, coal, gas, natural energy, cogeneration, geothermal, solar and wind, landfill gas plants usually help to reduce the overall greenhouse effect by converting methane generated in landfills to carbon dioxide and hopefully to energy.

It should be noted that controlling landfill gas is required by both state and federal regulation, and the US EPA has strongly supported the development of methane gas to energy systems as a most appropriate and environmentally sound means to provide this type of control.

AB 1890 can potentially provide a jump start that California renewables in general and landfill gas projects in particular need to compete in the open energy market in a more substantial way.

Our coalition supports in general the guiding policy objectives and specific actions as defined in the Staff proposal for the allocation of the 540 million provided by the act. We do offer the following specific comments on the proposal for the Commission's consideration as it strives to meet the deadline for legislative submittal.

Recommendation number one. The coalition supports the existing facility allocations. We support the proposed allocation for existing facilities in the exact amount of the 40 percent which is consistent with the intent of the legislation and appears to be reasonable to our coalition.

We support the allocation of the 26 percent or 140 million for the combined interests of landfill gas and biomass facilities. The proposed fund distribution as production credits on a cents per kilowatt hour basis is appropriate as these credits may be used for debt reduction and plant modifications to improve efficiency. Other alternatives seem to be unnecessarily complex.

Recommendation number two. Simplify and reshape the new and

emerging technologies allocation scheme. The proposed allocations to new, repower new construction and emerging accounts is overly complicated and places excessively large funding priority on the emerging technologies in this relatively short transition period.

Further, only 11 percent goes to the support of open competition from all technologies for new projects.

Given the act's objective of building a robust supply side renewables market, this allocation seems inappropriately small. The coalition proposes that the allocation proposed for emerging renewables be reduced by 80 percent to 22 million and that 80 percent or 86 million be combined with the new renewables, both repower and new construction combined, to create a new, larger renewables allocation of 210 million. Competition for this funding under this category should be open amongst all technologies.

We seek a nondiscriminatory opportunity to compete for AB 1890 funds for all new projects with competition without tears, set aside subjective rules or regulations.

We also believe that the distribution mechanism for new projects should be production credits, not project financing. New renewable projects using proven technologies, such as landfill gas recovery, can use production credits as the incentive, the positive incentive, for the expansion of new projects. If anything, it is probably more appropriate that emerging technologies be the beneficiaries of project financing as they have above average risks and are expensive finance.

The point was made earlier at comments that banks are risk averse for this kind of projects. This could fill that vital role for financing for emerging technologies.

Recommendation number three. Report should recommend that landfill gas to energy projects be exempt from CTC. Section 383C-1 suggests that the Legislature supports additional financial support to facilities that utilize energy from environmental pollution.

For example, that section specifically requires that the Commission consider mechanisms to assist cogeneration facilities that produce energy from

environmental pollution.

Given the additional societal benefits of energy production from pollution, we urge the Commission to recommend that assistance be provided in the form of an exemption from the competitive transition charges. As was discussed above, landfill gas to energy projects do reduce environmental pollution, and we support the additional consumer oriented incentive to support energy from pollution.

In closing, some comments were made today concerning the inclusion or possible exclusion of landfill gas projects from the category of biomass projects. We feel very strongly that as is supported by your Staff's recommendation in the report that landfill gas recovery projects are indeed biomass projects. And we would oppose the separation of those types of projects either into some other category or through a fixed percentage allocation. We're prepared to compete on a competitive marketplace in the biomass category.

I thank you for the opportunity to present our thoughts to the Commission's Staff's proposal for renewables. On behalf of our coalition I hope you will consider our suggestions for fulfilling the promise provided by AB 1890 by renewable energy producers. And again our comments will be submitted in accordance with the January 22 deadline.

Thank you.

PRESIDING COMMISSIONER MOORE: Thank you. Appreciate it.

Carey Sachs? No. First no show of the entire day.

Our last speaker will be Bob Ellery.

MR. ELLERY: Bob Ellery with Sierra Pacific Industries.

I just want to make a couple of short comments. First comment deals with the Staff comment relative to exclusion of facilities with SO₂ contracts and biomass facilities with captive fuel supply.

Being a holder of an SO₂ contract, clearly I disagree with that exclusion. But more importantly there's no reason for it. I mean as all reasons stated if they want to pick on a solar project, then say it. Don't try to wrap up everybody else if they want to exclude a solar project.

The SO₂ contract we have, we build the facility in 1985. I mean it's no different than, it's very little different, quite frankly, than an SO₄ contract except we give more benefits to the utility. It's dispatchable. So we actually operate less hours. They only let us operate basically 12 to 13 hours a day. So then double penalize us by excluding it doesn't seem hardly fair.

Same issue with the captive fuel supply. I mean there was no discussion in the report as to the logic, any reason or rationale to it. No definition of what is meant by a captive fuel supply. No discussion as to why you picking on biomass instead of wind, geothermal or anybody else. So it's hard to really comment because it's, you know, there's no logic to it. There's no definition or logic so it's, you know.

If you define it, you know, most plants have captive fuel supplies as one of the other speakers said. Biomass plants, a lot of them, have fuel contracts. Is that captive? You know. Probably. Wind project's certainly a captive. They can't go anywhere.

So I again, without a lot more discussion, you know, I just think it ought to be not included as an exclusion. It makes no sense.

Contract restructuring, it's been beaten to death so I won't spend any time other than to say it's really again still between two independent parties. I disagree that the Commission here ought to skew the negotiation on either side. I mean, quite frankly, I don't think it ought to be party to this conversation, this discussion.

There is a significant amount of power available to be sold right now. I think biomass alone is over 100 megawatts that don't have power contracts. So to suggest we need to have a wholesale contract restructuring would only, in my opinion, skew the market the other way. You'd have all of these plants with no place to go with their power.

If the market works the way the market should work, supply and demand will equal each other. So if the market gets creative, the power marketers do their job, if the market's there, people will be there to serve it. We'll certainly love to serve them their needs.

So again I just, I know you've kind down played it here, but I do agree that if there's one thing that's broken that needs to be fixed it's getting approvals through the PUC. I mean even people spend a lot of time trying to negotiate deals, and then they get undone by inaction by the PUC. So, you know, I would certainly suggest that the Staff report could indicate that that's a problem that should be addressed.

Last, the last subject I'd like to talk about is the customer incentive option. We do support that option. I think as I've said before in testimony that we believe that building a market is the future. And we encourage getting there sooner than later.

Couple of issues that I do think are important. One, it should be open to all customers. I don't see any rationale for limiting it to residential and business, small business. It should be open to all customers because otherwise you're constraining the market.

Second issue, need to be careful that we're not double dipping. It's not clear from the Staff report that, for example, an existing biomass facility could get money out of the existing pot and then go do a deal, direct access deal, and get money for the customer on the other end, or a new or an emerging. So I think we would need to make sure that people can't collect on both sides of the deal.

And my last comment is if we're going to have a customer incentive program, then there ought to be a customer incentive program and not a power marketer incentive program. I believe the rebates should be given to the customers because otherwise there's no assurance that the customers are really understanding what they're buying, and that they are the ones that are really buying renewable power.

A power marketer could package a lot of power and go to market with just power and not really disclose to the customer that he's really peddling green power, and then go back and get the money out of the fund. And I don't think that would benefit the renewable funds.

So I would like to see that if we're going to have a customer rebate program, that only the customers be entitled to the rebate.

Thank you.

COMMISSIONER SHARPLESS: Excuse me. I want to ask Staff. It was my understanding that that's the way the report is currently designed.

MR. MASRI: I'm sorry.

COMMISSIONER SHARPLESS: That the rebates go to the customer.

MR. MASRI: The rebates is intended to incentivize, to give incentive to the customer to buy renewable power; but it is intended to go to the customer through the supplier or the aggregator or the marketer that we have led out right now.

Our intention is to get it to the customer. And some of the details that we need to think about is an efficient and a quick way for us to do that. The customers are large in number, unlike aggregators or marketers or suppliers, and so it's something we are taking note of to think about how we can devise an efficient method to get the rebates to the customer. That is our intention.

MR. ELLERY: Okay. But as it's worded now, I mean it specifically says customers, marketing agents and renewable projects alike.

COMMISSIONER SHARPLESS: Well, it sort of says, I guess, both. And I keyed on the customers, and I guess there's other language. So it can be confusing.

MR. ELLERY: Yeah, I mean I agree with your key. I want to see it go to the customers. I'm concerned the ability of getting it to power marketers and the customers not getting it.

COMMISSIONER SHARPLESS: We appreciate your concern.

PRESIDING COMMISSIONER MOORE: Let me just add one remark on that, and that is that we do expect to be joined at at least one of our hearings prior to this going to the Legislature by one or two of our colleagues at the PUC who are handling this issue at their end. So Commissioner Neeper, and I don't know the second Commissioner who may be involved, Commissioner Knight will, we expect, be joining us for some of these discussions.

Now, we've had a number of comments today where I know from remarks made to me at lunch, and perhaps to Commissioner Sharpless as well,

people wanted to respond to.

Since we didn't open this as a forum for cross debate, I'll suggest that if there were remarks made, especially since not everyone is here which wouldn't be fair, if there were remarks made today that you disagree with strongly and you still going to submit comments to us, you might take and note the disagreement that you had with points that were made. We'll take note of that when it comes to us, of course, rather than try and open this up for a rebut of point, counter point, here when not all the actors are present. It simply wouldn't be fair.

Similarly, I'm not going to ask Marwan to respond to all the points now that were raised where clarification wasn't made at the time the question was asked or a point was made. Again, I don't know that that would be fair given the actors are not all here. But I assume that since we've been taking pretty copious notes on this all day that we'll discuss this in the staff round table prior to the next document that we publish.

With that, let me say that, and for those who are listening or tuning into our remarks through the World Wide Web or through hearing this over the microphone, we'll adhere to our 22nd deadline. We can't deviate from that. We hope that remarks will get in to us prior to that. Give us a chance to digest them. But there will be a cut off. And that's firm.

So remarks received after the 22nd will not be considered. And I hate to be arbitrary about it, but we simply have to go on and be able to make progress on this. So in order to treat everyone fairly, I'll be absolutely, absolutely, dictatorial about that, believe me.

And with that we will publish following digestion and contemplation of those remarks, and you'll have another go at us in our committee hearing. And notice will be published on that. I don't know the exact date at this point, but we'll as fast as we can determine how much time it's going to take us to compile and get a comprehensive and thoughtful document out we will notify you of the next date.

With that, I will close this hearing. Thank everyone for their help and attention and look to see you again.

[The meeting adjourned at approximately 4:30 P.M.]

CERTIFICATE OF REPORTER

I, **A. FLYNN**, a duly commissioned Reporter of **CourtScribes**, do hereby declare and certify under penalty of perjury that I have recorded the foregoing proceedings which were held and taken at the **CALIFORNIA ENERGY COMMISSION** in Sacramento, California on the **16th day of January 1997**.

I also declare and certify under penalty of perjury that I have caused the aforementioned proceedings to be transcribed, and that the foregoing pages constitute a true and accurate transcription of the aforementioned proceedings.

I further certify that I am not of counsel or attorney for any of the parties to said hearing, nor in any way interested in the outcome of said hearing.

Dated this **21st day of February 1997** at Foresthill, California.

A. FLYNN
REPORTER